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OF THE  
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OF  
ST. MARY'S HOSPITAL.

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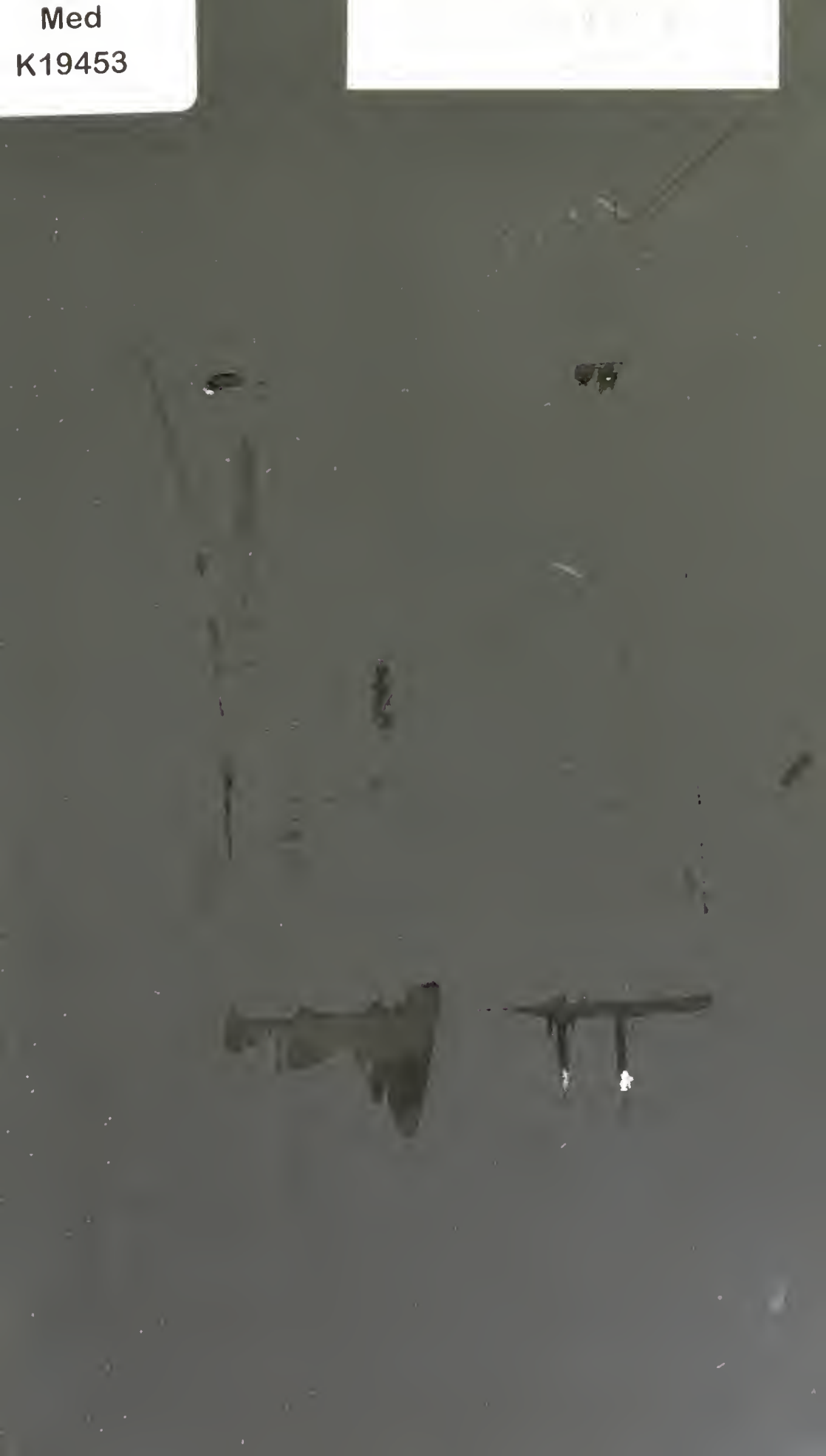
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DESCRIPTIVE CATALOGUE  
OF THE  
PATHOLOGICAL MUSEUM  
OF  
ST. MARY'S HOSPITAL.

BY  
J. JACKSON CLARKE,  
M.B. LOND., F.R.C.S.,  
*Curator of the Museum and Pathologist.*

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1891.

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## PREFACE.

The Medical School associated with St. Mary's Hospital was established in 1854, three years after the opening of the Hospital.

The first mention of the Museum in the records of St. Mary's Medical School, is in the Minutes of the Second Meeting of the School Committee of St. Mary's Hospital, held on Tuesday, 20th June, 1854.

The Minute runs :—

“At a Meeting of the School Committee of St. Mary's Hospital, held on Tuesday, June 20th, 1854,

“*Present :*

“Dr. ALDERSON, in the Chair.

“Mr. BROWN.

“Dr. JAMES BIRD.

“Dr. CHAMBERS.

“Mr. LANE.

“Mr. RANDALL.

“Dr. SIEVEKING.

“Dr. SIBSON.

“Mr. H. SPENCER SMITH.

“Dr. TYLER-SMITH.

“Mr. A. URE.

“Moved by Dr. CHAMBERS, seconded by Mr. BROWN, and Resolved :—

“‘That Dr. MARKHAM, Dr. HANDFIELD-JONES, Dr. SIEVEKING, and Mr. LANE, be a Sub-Committee to Report what will be necessary to complete the Museum to satisfy the conditions of the College of Surgeons and Apothecaries' Hall, and the requirements of the Lectures.’

“Moved by Dr. SIBSON, seconded by Dr. CHAMBERS, and Resolved :—

“‘That the Lecturers on each subject be requested to ascertain and Report to the Museum Sub-Committee what preparations are now in the Museum or may be procurable by donation, and what additions are desirable for the illustration of such subject, and that such Reports shall be submitted to the School Committee by the Museum Sub-Committee, with their Report.’”

At a later Meeting, July 4th, 1854, it was moved by Mr. H. SPENCER SMITH, seconded by Dr. SIEVEKING :—

“That Mr. ANCELL'S name be added to the Museum Sub-Committee.”

In the same year Mr. JOHN NORTH, a London practitioner and teacher, added to the Museum a collection of two hundred specimens.

In 1856, Mr. SAMUEL ARMSTRONG LANE presented to St. Mary's Hospital four hundred and thirty-one Anatomical, two hundred and fifty-five Pathological specimens, two hundred and eighty diagrams, and thirty-nine wax models and casts. All these preparations were made by the donor himself during a period of over thirty years at his School of Anatomy in Grosvenor Place.

The present Catalogue is based on the manuscript Catalogue begun by the late Dr. CHARLES MURCHISON, F.R.S., in 1855, and continued by subsequent Curators, among whom were Dr. BROADBENT, Dr. BASTIAN Dr. PAYNE, the late Dr. MAHOMED, Mr. PEPPER, Dr. HENDERSON, and Mr. SILCOCK.

It is hoped that a printed Catalogue will make the Collection more available for study and for reference.

J. J. CLARKE.

ST. MARY'S HOSPITAL MEDICAL SCHOOL,  
October 1st, 1891.









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CATALOGUE  
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SERIES I.—GENERAL PATHOLOGY.

ERRORS OF DEVELOPMENT.

1. A single monster, with partial anencephaly and ectopia of the heart and some of the abdominal viscera.

The amnion is continuous with the membrane covering the rudimentary brain, the umbilical cord is very short, and the placenta is continuous with the tissues of the forehead. The posterior nares are not formed. An example of congenital deformity owing to defective formation and coalescence of parts of the embryo.

2. A bifid uvula.

A deformity due to defective coalescence of the superior maxillary processes of the embryo.

3. A foetal hand with six digits.

Due to cleavage of the embryonic rudiment of a finger. Both hands and both feet had six digits.

4. A crab's claw, the last joint of which is trifold.

The rudiment has undergone dichotomy, and one of the resulting branches has again divided dichotomously.

Mr. PEACOCK.

5. Double monster. A foetal pig, in which the lower part of the spine, the pelvis, and the lower limbs are doubled.

Due to axial cleavage of the hinder part of the undifferentiated embryo.

DEFORMITIES DUE TO ABNORMAL INTRAUTERINE PRESSURE.

6. The foot of a full-grown foetus, showing talipes valgus, due to intrauterine pressure.

7. The skull of pony whose premaxilla is bent to the left. The incisor teeth are crowded together. The incisor part of the lower jaw is correspondingly bent to the right. On the left side of the upper jaw the molar teeth are reduced in number from six to four.

The deformities are probably congenital.

Mr. WRAGG.

## PIGMENTATION.

8. A congenital pigmented mole.
9. A piece of tattooed skin from the arm of a sailor.

## ATROPHY.

10. Part of the shaft of a tibia, showing concentric and eccentric atrophy.  
From disuse, due to disease of the knee-joint.
11. A calvarium, showing senile atrophy.

## HYPERTROPHY.

12. Part of a heart, showing the wall of the left ventricle to be double its normal thickness. The aortic valve is stenosed.  
An example of compensatory hypertrophy. Dr. HANDFIELD-JONES.
13. The kidneys of an adult. The left is rudimentary. The right is double its usual size.  
An example of compensatory hypertrophy.

## HYPERPLASIA.

14. Congenital goître in a kid.  
The microscope shows the increase in size to be due to numerical increase of normal gland acini. Mr. BLAND SUTTON.
15. The skull of an old person, thickened and sclerosed.  
A condition known as senile hypertrophy.
16. Part of the shaft of a femur, greatly thickened and condensed from chronic inflammation.

## SPECIMENS SHOWING THE EFFECTS OF PRESSURE.

17. Dorsal vertebræ, eroded by the pressure of an aneurism.  
The inter-vertebral discs, by reason of their containing but few vessels, are very little affected.
18. The lower part of an œsophagus, with the neighbouring parts showing an irregular ulcer perforating the œsophagus and the pleura.  
From a dog which, four days before it died, swallowed the irregular piece of gristle suspended below. The dog died in great pain. The piece of gristle was found impacted in the œsophagus and projecting into the left pleural cavity, which was full of fluid. Mr. PAGE.





## CONCRETIONS AND CALCULI.

19. Intestinal concretion (polished), from the cæcum of a horse.  
Mr. WRAGG.
20. Cylindrical intestinal concretion, from the cæcum of a horse.  
Mr. WRAGG.
21. Calculi, removed after death from the cæcum of a mare.  
They consist of crystallised ammonio-magnesian phosphate. There were no symptoms during life.  
Mr. G. BIRD.
22. An oat-hair concretion, from the cæcum of a horse.  
A section made with the saw shows a small brass disc, around which the concretion formed.  
Mr. WRAGG.
23. Part of a bear's kidney, showing a branched calculus lodged in a calyx.  
The calculus is phosphatic.  
Mr. BLAND SUTTON.
24. Two calculi, removed after death from the kidneys of a horse.  
They consist of carbonate and phosphate of lime.  
Mr. WRAGG.
25. Fragments of a vesical calculus, from a horse.  
The three lower pieces were removed by lateral lithotomy, after they had been broken away from the lower portion, which remained encysted in a sacculus and was removed after death.  
Mr. WRAGG.
26. Five cholesterine gall-stones.  
They show the formation of larger calculi by the cohesion of small ones.  
W. HUNT.

## DISPLACEMENTS.

27. Congenital hernia, from a monkey.  
In nearly all monkeys the tunica vaginalis remains in communication with the peritoneum. In this case a piece of omentum has descended as a hernia.  
Mr. BLAND SUTTON.
28. Ileo-colic intussusception, from a lemur.  
Mr. BLAND SUTTON.

## COAGULATION.

29. A clot which filled the right auricle and extended into the pulmonary artery of a patient who died of acute pneumonia.  
The greater part of the clot was pale, tough, and laminated, having been formed during life. The microscope shows this part of the clot to consist of leucocytes held in a network of fibrin.

## NECROSIS.

30. A portion of spleen, containing two recent infarcts. They are decolorised.

Infarction is a familiar example of coagulative necrosis.

31. Half of a kidney, showing a depressed scar resulting from the organisation of an infarct.

32. The skin of the heel of an old woman who died after a long illness.

The skin is gangrenous. The specimen shows the mode of beginning of a bed-sore.  
Mr. OWEN.

33. Senile gangrene of the toes. The line of demarcation has formed.

Mr. PYE.

## DEGENERATION.

34. A suprarenal body considerably enlarged and occupied by caseous matter, the result of fatty degeneration of tubercular cells.

From a man who died of Addison's disease.

35. Costal cartilages which have undergone calcification.

From an old person.

36. A uterine myoma completely calcified.

NORTH COLLECTION.

37. Part of a spleen showing sago-like nodules, which are the Malpighian bodies, the vessels of which have undergone amyloid degeneration.

38. Part of a cancer of the breast. The more recently formed parts of the growth contain no colloid matter; in the older parts the alveoli are filled with colloid matter.

The microscope shows the deposit to be of intracellular origin.

## REPAIR AFTER INJURY.

39. A portion of skin showing a wound that has healed by first intention.

The line of the wound is everywhere covered by epithelium. From a patient who died a week after herniotomy.  
Mr. PEPPER.

40. The bones of the hind limbs of a hare. On the right side the lower epiphysis of the tibia has been separated. A piece of new bone one inch long has been developed and joins the shaft a little below the middle.

The lower part of the shaft projected through the skin; it was necrosed and in process of separation.  
Mr. JAMES LANE.

41. The fore part of the pelvis of a horse deformed by a fracture which is firmly repaired.

Mr. WRAGG.







## FRACTURE.

42. The navicular bone of the foreleg of a horse fractured vertically.  
The fracture is due to muscular violence. Mr. BLAND SUTTON.

## INFLAMMATION AND ITS RESULTS.

43. A blister-mark from the skin showing the small vessels distended with blood in the early stage of inflammation. Mr. SILCOCK.
44. Part of a finger affected with whitlow, showing the effects of long-continued suppuration.  
The nail has separated and a cluster of granulations springs from the ungual phalanx. The second phalanx is partly replaced by granulation-tissue. A portion has become necrosed, and forms an exfolium. Mr. S. LANE.

45. An abscess.

46. Part of a leg showing a chronic ulcer.  
The skin below the ulcer is hypertrophied.

47. Pleuritic adhesions.

48. The carpus and metacarpus of a horse, showing extensive formation of new bone due to periostitis.

49. Half of the lower jaw of a horse, showing a large mass of ossified callus containing a cavity, in which lay a sequestrum.  
Due to a fracture of the jaw. Mr. WRAGG.

## ANCHYLOSIS.

50. The bones at the elbow joint, firmly ankylosed together.  
From a patient who had had tubercular arthritis and who died of phthisis.

51. Dorsal and lumbar vertebræ from a horse. There are bridges of bone uniting neighbouring vertebræ. The inter-vertebral discs are not affected.

Due to the pressure exerted upon the vertebræ in working in the shafts.

Mr. WRAGG.

## SPECIFIC DISEASES.

52. Tuberculosis. The respiratory passages of a rhœa. The soft palate, larynx, trachea and lungs, contain firm caseous masses, which the microscope shows to be tubercle.

Mr. BLAND SUTTON.

53. Part of a human spleen, from a case of general tuberculosis. The organ is studded with tubercles.

54. A portion of small intestine, showing ulcers. Tubercles are visible beneath the peritoneum corresponding with the ulcers.
55. The lower end of a femur which contains a porous sequestrum, surrounded by granulations which the microscope shows to be tubercular. The granulations have at one point reached the surface by eating through the articular cartilage. The bone around the sequestrum is sclerosed.  
From a middle-aged man who had suffered for some years from knee-joint disease, when he died of pulmonary tuberculosis.
56. Syphilis. A sub-cutaneous gumma at the back of the forearm. The softened contents have escaped leaving the abcess-wall folded.
57. The soft palate, pharynx, tonsils, and larynx, all presenting ulcers due to syphilis. Mr. GASCOYEN.
58. A calvarium, showing lesions due to syphilis. The inner table is affected more extensively than the outer. There are several sequestra.
59. Typhoid Fever. The lower end of the ileum, showing swelling and ulceration of Peyer's patches and of the solitary glands, and enlargement of the mesenteric glands.  
From a patient who died of typhoid fever.
60. Diphtheria. The fauces and respiratory organs of a child. The tonsils are swelled and covered with membrane which extends into the larynx, trachea, and bronchi. The lungs are congested and in parts consolidated.

### NEW GROWTHS.

(A.) *Resembling fully differentiated connective tissues.*

61. A fibroma removed from a woman aged fifty, who had multiple fibromata of the skin—molluscum fibrosum. Mr. OWEN.
62. Myxoma. A mucous polyp removed from the mucous membrane over the posterior part of the vomer.  
The growth hung down over the soft palate. Mr. PEPPER.
63. A lipoma removed from the subcutaneous fat.
64. A chondroma springing from the lower part of the femur. The medullary cavity is also filled with the growth, the base of which is ossified. Scattered through the tumour are calcified areas. There is a large cyst due to the breaking down of myxoma tissue.  
Removed by amputation. Mr. LANE.





65. A large fibro-cartilaginous tumour springing from the ramus of the jaw of a boar-hound.

Mr. BLAND SUTTON.

66. A small spongy osteoma removed from the great trochanter.

The superficial covering of cartilage is well seen.

Mr. OWEN.

67. Myoma (fibroid) of the uterus. The growth lies surrounded by the muscular tissue of the uterine wall.

The cavity of the uterus is enlarged.

68. A small subcutaneous nævus.

Some of the venous spaces contain mercury.

Mr. S. LANE.

(B.) *Resembling Undifferentiated or Embryonic connective tissues—Sarcomata.*

69. A sarcoma springing from the periosteum of the frontal bone.  
The tumour was congenital. The microscope shows it to consist of small round cells.

Mr. S. LANE.

70. A large myxo-sarcoma of the forearm injected.

Removed from a middle-aged man.

Mr. PEPPER.

71. Spindle-celled sarcoma.

Removed from the subcutaneous tissues of the buttock. The growth recurred.

Mr. PYE.

(C.) *Epithelial new growths.*

72. One half of a large papilloma with a slender pedicle.

The cut surface shows that the greater part of the growth is composed of fibrous tissue.

73. Two of the breasts of a bitch.

The cut surface shows a number of cysts with intracystic growths. These are comparable with the gland-cysts met with in the human breast.

Mr. NORTON.

74. One half of a man's leg, showing a squamous epithelioma.

The new growth looks white against the normal tissues which contain more of the blue injection. It has reached the tibia, which is carious at one part, and which elsewhere shows the effects of chronic inflammation.

75. Part of a breast, showing a cancer which has infiltrated the skin, and begun to project on the surface.

The deeper part of the new growth contains a large proportion of fibrous tissue. This gave the lump the hard feel which distinguishes scirrhus cancer.

## CYSTS.

(A.) *Arising from the distension of pre-existing tubes or cavities.*

76. Two sebaceous cysts from the scalp.

77. Cystic kidney from a pigmy hog.

The microscope shows that many of the cysts arise by distension of the glomerular space. Mr. BLAND SUTTON.

## CYSTS OF NEW FORMATION.

78. Half of a cystic tumour which sprang from the hilum of the testis.

The microscope shows that the growth has the characters of an adeno-chondrosarcoma. The cysts arise in epithelial tubes which are at first solid, but become hollow by liquefaction of the central cells.

## CYSTS OF CONGENITAL ORIGIN.

79. A calcified dermoid cyst containing sebaceous matter and hairs.

Removed after death from the ovary of a woman.

Mr. MORGAN.

## DEGENERATION CYSTS.

For an example of a cyst formed by the breaking down of mucoid tissue, *see* No. 64.

## PARASITIC CYST.

80. A calcified hydatid cyst.

From a monkey's liver.

Mr. BLAND SUTTON.

## SERIES II.—FRACTURES.

## REPAIR.

81. Simple transverse fracture of the left radius and ulna, a few days old.

The radius is broken immediately above the insertion of the pronator teres. Some of the plastic effusion remains holding the fragments together.

82. Comminuted fracture of the lower third of the femur, with longitudinal fissures extending downwards. The lower fragment is drawn up behind the upper.

There is little attempt at union. The callus still contains much blood, and is partly ossified. From a patient who lived four weeks after receiving the injury.







## 83. Greenstick fracture of the radius and ulna.

From a child aged eleven months. The callus is most abundant in the concavity of the bend, and at the back of the radius it is partly converted into cartilage. The child died of marasmus three weeks after the injury. Dr. HANDFIELD-JONES.

## 84. Fractured ribs, with abundant callus which is largely cartilaginous.

There is no internal and no intermediate callus.

Mr. SILCOCK.

## 85. Oblique fracture of the shaft of the femur.

The union is very firm, and the medullary cavity is interrupted by a tract of cancellous bone. On the posterior aspect is an osteophyte formed by the ossification of a tendon involved in the callus.

## 86. The humerus of a bird, showing a united fracture.

The ends of the fragments were two inches apart, but have been united by a piece of new bone, the central part of which has been converted into cancellous tissue.

Mr. J. LANE.

## DEFECTIVE REPAIR.

## 87. An oblique fracture through the base of the olecranon repaired by fibrous tissue.

Mr. S. LANE.

## 88. A right tibia with a fracture repaired by fibrous tissue. The bone on each side of the fracture is sclerosed.

From an amputated limb. The patient had a compound fracture of both bones. About three inches of the tibia became necrosed, and were removed. At the end of six months the union was still fibrous. Two years later the ends of the fragments of the tibia were exposed and freshened, but no bony union resulted. A year after this a part of the fibula was resected, and the ends of the fragments of the tibia were again exposed, freshened, drilled and wired. The operation failed, and amputation was performed. See No. 399.

Mr. OWEN.

## 89. The tenth rib of the left side with a diarthrodial false-joint.

From a man aged thirty-eight, who died of chronic phthisis. The fracture occurred six months before death. The ends of the fragments are covered by a thick layer of fibro-cartilage and united by a fibrous capsule.

## 90. A humerus, showing a diarthrodial false-joint.

The ends of the fragments are greatly sclerosed, and the rounded upper is received into the hollowed lower fragment. There is a well-marked capsule.

## 91. The upper part of a humerus, showing a diarthrodial false-joint.

Osteophytes have formed at the margin of the lower fragment, making a cup for the reception of the upper fragment. The fractured surfaces are partially covered by fibro-cartilage.

Mr. SILCOCK.

## 92. The lower end of the left humerus, showing a fracture imperfectly repaired.

The lower fragment is displaced forwards and inwards. The fracture was compound and was followed by prolonged suppuration.

Mr. S. LANE.

93. The upper end of the left humerus, with a fracture through the surgical neck.

Thin lamellæ of bone have formed in the external callus, but the medulla and the rest of the callus has been largely destroyed by suppuration. The patient died eighteen months after receiving the injury. After death the bone was found lying in the cavity of an abscess.

WILLMOTT.

#### SEPARATION OF EPIPHYSES.

94. Separation of the lower epiphysis of the humerus and comminuted fracture of the olecranon.

From a child, aged about four years. The injury was caused by the arm being jammed in a gate. Amputation was performed at the shoulder because there was violent traumatic inflammation spreading upwards. The brachial artery was crushed and thrombosed. The fracture has taken place in the young bone, between the shaft and the epiphyseal cartilage.

Mr. PAGE.

95. The radius and ulna of an adult.

The radius is shortened by one inch. A case of separation of the epiphysis in early life.

96. Cast showing the deformity due to arrest of growth of the ulna owing to separation of the lower epiphysis.

From a girl of fourteen, who at the age of two was injured by a chaff-cutting machine. The wound extended half-way through the limb, and divided the ulna just above the wrist. Part of the radius was excised, and a straight and useful limb obtained.

Mr. OWEN.

97. Greenstick fracture of the ulna, and separation of the cartilage of the upper epiphysis from the shaft.

The child was admitted with a compound dislocation of the elbow. There was much laceration of the soft parts, and the ulnar vessels and nerve were divided. Amputation was performed.

Mr. OWEN.

#### FRACTURES OF THE SKULL.

98. Fissured fracture, involving the occipital and parietal bones.

99. Fissured depressed fracture of the left parietal bone.

The line of fracture crosses two large branches of the middle meningeal artery. From a patient who died of compression, due to extradural hæmorrhage. (See No. 719).

Mr. LANE.

100. Fracture of the frontal bone for which the trephine has been used.

From a boy aged fourteen who had a compound fracture due to the kick of a horse. There were no symptoms of compression, though a piece of bone was depressed. On the second day the trephine was applied. Death occurred on the eighth day from meningitis. (See No. 723).

Mr. LANE.

101. Fissured fracture of a skull. The lower part of the right parietal bone is separated.

Three other fissures radiate from the coronal suture. The fissures in the inner are more extensive than those in the outer table.





## 102. Multiple fissures of the skull.

The fissures in the two tables do not exactly correspond.

Mr. LANE.

## 103. Gutter-shaped depressed fracture.

An oval piece of bone has been depressed and almost isolated, and also subdivided down the middle. The inner table is more depressed than the outer.

## 104. Gutter-shaped fracture, implicating the left parietal and frontal bones.

## 105. Depressed fracture of the right parietal bone.

The inner table is depressed to a much greater extent than the outer.

## 106. The fore-part of a skull-cap showing an incised fracture.

From a murdered man. The blow was inflicted with a hatchet.

Mr. E. W. ROUGHTON.

## 107. A skull, with a gap extending from the occipital to the anterior border of the parietal bone.

Due to a fracture caused by a sabre some years before the death of the patient.

## 108. Fracture of the skull with outward displacement of a large fragment, which comprises about half of both parietal bones.

The fragment is attached only on the right side. From an old subject in the dissecting room. The head presented a deep pit, lined with scar tissue. There was another scar in the left parietal region. The fracture probably occurred in early life.

Mr. J. E. LANE.

## 109. Comminuted fracture of the frontal bone and fracture of the base.

There is a gap in the right frontal sinus, and from this point a fissure passes through the right orbital plate across the body of the sphenoid, inclining to the left as it passes backwards. It then crosses the middle of the left petrous bone, and ends at the jugular foramen. The left superior maxilla is fractured into three fragments, and the right malar bone is broken. From a man who, when working at the bottom of a sewer, was struck by some flag-stones which fell as they were being lowered to him. On admission he could answer questions. He did well for fourteen days, then delirium set in, and death occurred on the twenty-fourth day. The specimen illustrates the fact that fractures of the base are usually fissured, and that they usually start from the point struck on the vault. It shows that a considerable amount of repair can be effected in three weeks.

## 110. A skull, with extensive fractures radiating from the right parietal region.

A large fragment, consisting partly of parietal and partly of squamous bone, was depressed, and was removed during life. Numerous fissures radiate from the point struck. The bones of the face are extensively broken, and two fissures traverse the base. From a middle-aged man who was brought in unconscious after falling from a height on his head. He lived twenty-four hours. There was bleeding from both ears and deep ecchymosis of both eyes.

## 111. A calvarium, showing the manner in which defects in the cranial walls are repaired.

A dense membrane closes the gap. Bone has been deposited here and there in the membrane.

112. Section through the right upper wisdom-tooth, and tuberosity of the superior maxilla.

Attached to the anterior fang of the tooth is a small mass of granulations which weakened the bone and caused it to give way when an attempt was made to extract the tooth.

Mr. FISK.

## FRACTURES AND FRACTURE-DISLOCATIONS OF THE SPINE.

113. Fracture of the axis. The arch is separated from the body of the bone.

From a criminal who was hanged.

Mr. OWEN.

114. The upper six cervical vertebræ. The bodies of the third and fourth are separated by rupture of the intervertebral substance a portion of which is forced through the posterior common ligament. Both sides of the laminæ of the first, second, and third vertebræ, and the right side of the fourth, are broken through. The capsular ligaments joining the third and fourth vertebræ are torn. The cord was compressed by the upper margin of the fourth body.

The injury was received by a man in a tavern brawl. He had been firmly bonneted, when another person seized the brim of the hat and twisted it, with the head, from side to side, forcing the man backwards on to a seat. As soon as the hat was released the man's head dropped on his chest. Thirty minutes after the occurrence he was heard to groan. He was dead when he reached the hospital.

115. Fracture of the sixth cervical vertebra.

The body is greatly compressed. The arch of the fifth is widely separated from that of the sixth. The ligamentum subflavum is torn through, and the dura mater exposed. The right lamina of the sixth vertebra is fractured and displaced forwards. There is a partial dislocation between the articular processes of the fifth and sixth vertebræ on the right side. From a man who fell from a hay-rick upon the back of his head. When first examined he was completely paraplegic from the upper part of the chest downwards, and his arms were partly paralysed. The patient lived five days. During the last two days sensation returned along the inner side of both thighs.

Mr. COULSON.

116. Forward dislocation of the fourth cervical vertebra, with fracture of right lower articular process of the fourth and the right transverse process of the fifth vertebra. The latter lesion was caused by the impact of the articular process of the fourth vertebra which afterwards slipped back into its place. The capsular ligaments are completely torn on both sides. The cord presents a crease opposite the upper edge of the fifth vertebra.

From a man aged forty-three, who was thrown out of a vehicle on to the crown of his head. He lived two days. There was absolute paralysis of all the limbs, but the skin of the chest as low as the mamma was sensitive. Respiration was solely diaphragmatic.

Mr. LANE.

117. Fracture of the fifth dorsal vertebra. The body is compressed, but more extensively in front than behind, so that the anterior part is separated, and carries with it part of the next vertebra.









The body of the fifth vertebra has been made into a wedge and driven back so as to compress the cord. There is also a fracture through the lamina.

The injury was caused by a sudden bending forward of the body of the patient.

118. Fracture-dislocation in the dorsal region. The body of the seventh vertebra is displaced downwards and forwards, carrying with it a considerable part of the body of the eighth to the front of the ninth vertebra. The laminæ of the seventh and eighth are fractured and displaced. The cord is crushed.

119. Fracture and compression of the eighth dorsal vertebra. The ligaments are torn through at the back. The vertebral canal is only slightly narrowed.

Mr. COULSON.

120. Repaired fracture of the spine. A quantity of dense new bone is seen to unite the tenth vertebra, which is compressed into a wedge-shape, with the neighbouring vertebræ.

The man from whom the specimen was taken had recovered, but subsequently he died from a fracture in the cervical spine.

121. Dislocation backwards of the eleventh dorsal vertebra, with fracture through the pedicle and lamina of the twelfth. The body of the eleventh vertebra is separated from the intervertebral disc and by its lower edge it presses on the cord.

The backward displacement of the upper part of the column is unusual. There is no history of the accident, but as several of the viscera were ruptured, it seems to have been caused by direct crushing.

Mr. SPENCER SMITH.

122. Fracture of the eleventh dorsal vertebra. The cord is crushed, and there are remains of hæmorrhage outside the dura mater.

#### FRACTURE OF THE STERNUM.

123. United fracture of the sternum. The body of the bone is fractured transversely. The plane of separation passes obliquely downwards and backwards. The union is firm and the displacement slight. No history.

#### FRACTURES OF RIBS.

124. Two ribs which have been fractured and are united together by callus.

125. Seven ribs of the left side. The shafts are fractured. On the inner surface the callus had begun to ossify.

From an old woman who had been run over and who died ten days afterwards from broncho-pneumonia.

126. Fracture of the seventh costal cartilage. The perichondrium at the back is intact. The cartilage is calcified.

From an old man who had also a fracture of the spine from falling off a scaffold.

## FRACTURES OF OTHER BONES.

127. Fracture of the clavicle, with firm bony union.

The separation has taken place at the usual part—the junction of the two curves at the outer end of the middle third. The fracture is oblique, and, as usually happens, the inner overrides the outer fragment.

128. A clavicle, showing about the middle a repaired fracture with great shortening.

129. A clavicle, fractured immediately internal to the conoid ligament. The fragments are united by fibrous tissue.

Failure of bony union is rare in the case of the clavicle.

130. Impacted fracture at the anatomical neck of the humerus. The head has been driven into the tissue of the shaft to such an extent that it is below the level of the great tuberosity.

The latter process has sustained a partial fracture. It is bent outwards, recalling the fracture of the great trochanter in impacted fracture of the neck of the femur. Found in a disused vault.

WILLMOTT.

131. A plaster cast of the humerus (No. 130), taken before the section was made.

WILLMOTT.

132. Comminuted fracture through the upper end of the humerus, with separation of the head.

From a girl who fell heavily on the shoulder. Excision was performed.

MR. OWEN.

133. Parts of a right scapula and humerus, showing partial fracture of the acromion and separation of the great tuberosity by a vertical fissure.

No history.

MR. S. LANE.

134. The upper end of the left humerus, showing a fracture through the surgical neck, and a fissure extending vertically from the transverse fracture into the head of the bone.

Obtained from an arm after amputation for severe multiple compound fracture. When the patient was under ether there was no abduction of the upper fragment.

MR. OWEN.

135. Repaired comminuted fracture of the shaft of the humerus.

The bone has been divided into three fragments. The uppermost has been abducted by the deltoid and slightly flexed.

136. United fracture of the shaft of the humerus.

The fracture is below the insertion of the deltoid by which the upper fragment has been abducted.

137. Humerus, showing a comminuted fracture firmly united.

The fracture is below the middle of the bone. The upper fragment is abducted.





138. Fracture of the shaft of the humerus in the lower half of the bone.

The fragments overlap by more than an inch, the lower one being in front as is usual in this situation. There is some new bone formed at the seat of the injury. Removed from a limb which was amputated nine weeks after injury for destructive inflammation of the fore-arm and hand. (*See No. 216.*)

139. Oblique fracture of the humerus in the lower third.

The plane of fracture passes from above downwards and forwards. There is considerable overlapping, and the upper fragment is flexed, its lower end projecting in front.

140. The bones of the right fore-arm showing a fracture of the radius above the insertion of the pronator teres.

A mass of ossified callus unites the two bones. The upper fragment is supinated by the supinator brevis. The lower fragment has been drawn inwards and pronated by the pronators teres and quadratus. The specimen shows that the fracture was not properly treated, not having been put up in complete supination.

141. Fracture of the radius through the attachment of the pronator teres.

The fragments have united with angular deformity and with the lower fragment slightly pronated.

142. Colles's fracture.

The plane of separation passes perpendicularly from front to back, three-quarters of an inch above the extremity of the bone. Thus the fracture is transverse to the shaft. The posterior lamina of compact tissue is driven into the anterior part of the lower fragment, which is rotated on the upper fragment, so that the lower articular surface looks downwards, backwards, and outwards, instead of downwards, forwards, and inwards. The fragments have united in the position they had at the time of the accident.

143. Part of a radius, showing a Colles's fracture with fracture of the styloid process of the ulna.

A section has been made to show the impaction.

WILLMOTT.

144. Cast of the preceding specimen, taken before the section was made.

145. A cast of the lower end of a radius, showing a Colles's fracture.

From a specimen in the Museum of the London Hospital.

146. Colles's fracture, in which there is no outward displacement.

WILLMOTT.

147. Cast of the hand of a young woman, showing deformity resulting from an old Colles's fracture.

Mr. A. B. BATLEY.

148. The upper end of an ulna, showing the olecranon process, broken across about its middle, and united by fibrous tissue.

149. Incomplete fracture of both bones of the forearm.

From a youth of seventeen, whose arm was caught up in some machinery.

150. Green stick fracture of both bones of the forearm of an infant.
151. Comminuted fracture of the carpus and of the second and third metacarpal bones, with rupture of the radial artery and other injuries to the soft parts.

Due to the bursting of a gun in the hand of a gamekeeper.

152. Multiple fracture of the os innominatum.

The back part of the ilium is separated. Three fissures radiate from a point in the acetabulum, and pass respectively to the ischial spine, through the pectineal eminence, and through the margin of the thyroid foramen. The ramus of the ischium is also broken at its junction with the tuberosity.

153. Part of the os innominatum and the head of the femur. There has been a fracture through the acetabulum and an intracapsular fracture of the neck of the femur.

The fracture of the acetabulum is repaired by bone. The head of the femur remains attached by the round ligament.

154. Fracture of the rami of both pubic bones, with laceration of the membranous urethra.

155. Comminuted fracture of the pelvis.

A wide fissure crosses the acetabulum and the body of the ischium. The pubes is separated by a comminuted fracture from the rest of the os innominatum.

156. Fracture of the pelvis.

Both the horizontal and the descending rami of the pubes are broken, and also the ischium. The peritoneum was wounded by a spicule of bone, and contained sanious fluid. The pelvic viscera were much bruised.

Mr. COULSON.

157. Recent intracapsular fracture of the neck of the femur.

158. Intracapsular fracture of the neck of the femur of some standing.

There is no union. A shallow cavity has formed at the upper end of the shaft.

159. Intracapsular fracture of the neck of the femur of a dog.

There is no union. The head has formed a socket in the upper part of the shaft. The dog had been noticed limping in the neighbourhood of St. George's Hospital.

Mr. LANE.

160. Fracture of the neck of the femur at the line of attachment of the capsule.

The great trochanter is detached, displaced backwards and firmly united to the shaft which is rotated out. There is no union between the neck and the shaft. From a woman aged sixty-eight, who died of exhaustion due to the fracture.

161. Impacted fracture of the neck of the femur ; recent.

162. Intracapsular fracture of the neck of the femur : fibrous union.

From an old woman.







163. Upper end of the femur, with a cavity below the lesser trochanter.

From an old person, some years after the occurrence of intracapsular fracture. There was great shortening and no union.

164. Section of a recent impacted extracapsular fracture.

165. Impacted extracapsular fracture of the neck of the femur, with separation of a third fragment which includes both the trochanters.

From a man who died soon after the accident.

166. A recent fracture resembling No. 165, save that there is no impaction.

167. Fracture resembling No. 165; firmly united. The fracture was caused by a fall, and was treated by the long splint.

From a woman who died six years after the accident.

Mr. OWEN.

168. Extra-capsular fracture of the neck of the femur, and separation of a fragment comprising both trochanters and a pointed portion of the upper third of the shaft.

Removed three-and-a-half weeks after the accident from the body of a man aged seventy. There was no attempt at repair. The fragments were covered with extravasated blood, and the muscles infiltrated with blood and inflammatory infusion.

Mr. COULSON.

169. Impacted extra-capsular fracture of the neck, and fracture through the upper part of the shaft of the femur and separation of the lesser trochanter.

Some repair has taken place.

170. Extra-capsular fracture of the neck and great trochanter of the femur, solidly united.

The summit of the trochanter is displaced inwards.

171. Fracture of the neck and trochanters of the femur.

The trochanters are firmly united, but the neck is united by fibrous tissue only.

172. Fracture of the shaft of the femur in its upper third.

Firm union has taken place with a slight forward angle. The medullary canal is partly restored.

173. Fracture of the shaft of the femur at the junction of the upper and middle thirds.

As is usual, the upper fragment is flexed, abducted, and rotated out, and the lower fragment is drawn up.

174. Fracture resembling No. 173, with great obliquity from within, downwards, and outwards.

175. Separation of the inner condyle of the femur.

From a man who was run over by a heavy cart. (See No. 693).

176. Comminuted fracture of the lower end of the femur extending into the knee-joint.

177. The lower extremity of a femur, separated and broken into three fragments.

The separation is partly at the epiphyseal cartilage. The outer fragment was displaced behind the shaft. The crucial ligaments were torn. From the same case as No. 149.

178. Recent transverse fracture of the patella with very slight separation.

There is a little lymph about the broken surfaces.

179. Transverse fracture of the patella.

The bone is broken about the middle, and a third fragment has been partially detached from the upper half. There are two inches between the fragments. The ligamentous union is weak.

180. Transverse fracture of the patella.

There is one quarter-inch of separation. Firm ligamentous union.

MR. S. LANE.

181. Fracture of the patella five days after injury.

The fractured surface of the upper fragment is partly covered by torn ligamentous fibres, while that of the lower fragment is covered by a thick flap of ligamentous tissue, sufficient to prevent solid repair.

MR. PAGE.

182. Fracture of the tibia extending into the knee-joint.

183. Old fracture of the shaft of the tibia, with obliquity downwards and backwards.

There is firm union. The lower fragment projects forwards.

184. A tibia, showing an oblique fracture of the shaft.

The lower fragment is displaced outwards. The plane of separation passes from without, downwards, and inwards.

185. Fracture of the shaft of the tibia.

The plane of separation passes from behind, downwards, and forwards. The lower fragment is displaced backwards, and slightly rotated out.

WILLMOTT.

186. Old fracture of the shaft of the fibula in its upper third.

187. Fracture of both bones of the leg.

The fracture of the tibia passes obliquely downwards, backwards and inwards. The fibula is fractured at a higher level. Firm union has taken place, with deformity, and some shortening and inward rotation.

WILLMOTT.

188. Fracture of both bones of the leg in the lower part of the shafts.

The fracture is oblique from without, downwards, and inwards.





## 189. Fracture of both bones of the leg.

A quantity of callus unites the two bones for a distance of four inches. (From the dissecting-room.) WILLMOTT.

## 190. Transverse fracture of the tibia and fibula.

The callus, which has firmly united the fragments, also joins the two bones together. Mr. S. LANE.

## 191. Comminuted fracture of the tibia in its lower part, and of the fibula in its upper part.

The fracture was compound, and was due to a railway accident. Mr. HAYNES WALTON.

## 192. Fracture of the lower end of the fibula and of the internal malleolus.

The latter is displaced to the outer edge of the tibial articular surface, showing that the astragalus was displaced completely outwards, constituting Dupuytren's fracture. From a middle-aged woman who fell when drunk. Delirium tremens and suppuration followed. Amputation through the leg was successfully done.

Mr. PAGE.

## 193. Inward dislocation of the astragalus, with fracture of the internal malleolus, and fracture of the fibula, at the base of the external malleolus.

The astragalus is joined to the inner malleolus, and the latter is united to the lower end of the tibia by a piece of new bone, one inch long. WILMOTT.

### SERIES III.—DISLOCATIONS.

## 194. Dislocation of the atlas from the axis.

The transverse ligament has been ruptured and odontoid process displaced upwards and backward crushing the medulla oblongata.

## 195. Dislocation forwards of the sixth cervical vertebra. The articular process is fixed in front of that of the seventh. The cord is compressed.

From a man, aged fifty-three, who fell a distance of eight feet, upon the back of his head. Motion was lost, but some sensation remained in the extremities. The reflexes were exaggerated. There was retention of urine. No priapism or convulsions. Death on the fifth day.

## 196. Dislocation forwards of the twelfth dorsal vertebra, with complete dislocation of the last three ribs on the left, and partial dislocation of those on the right side. The intervertebral disc and the lower epiphyseal plate of the twelfth dorsal remain attached to the first lumbar vertebra. The cord was completely crushed.

From a man who was caught between the buffers of railway trucks.

Mr. L. ROGERS.

### 197. Subspinous dislocation of the humerus.

The injury is of old date, and has been left unreduced. A new glenoid cavity has been formed on the posterior aspect of the neck of the scapula by the deposition of a large quantity of new bone. The head of the humerus was broken in preparing the specimen. It was atrophied and brittle, and presented some osteophytic growths at the place of attachment of the capsule.

### 198. Outward dislocation of the first phalanx of the great toe.

The head of the metatarsal bone projected through the skin. There is hæmorrhage into the sheath of the extensor tendon. From a limb removed by amputation for other injuries.

### 199. Cast of the arm of a man who had an unreduced dorsal dislocation of the radius from childhood.

There was a fair degree of flexion and extension, but the power of supination and pronation was almost lost.

Mr. T. H. R. CROWLE.

## SERIES IV.—DISEASES OF BONES.

### 200. Senile hypertrophy of the skull. The bones are heavy and thick. The diploe is replaced by compact tissue.

### 201. Senile atrophy. Dorsal vertebræ and ribs of an old woman. The specimen also shows changes due to lateral curvature and osteo-arthritis.

Dr. MURCHISON.

### 202. The four lowest dorsal vertebræ eroded by an aneurism. Where the pressure was continuous a hollow has been formed by atrophy; where the pressure was intermittent there is a raised margin due to osteoplastic ostitis.

Mr. PEPPER.

## INFLAMMATORY AFFECTIONS.

### 203. A sequestrum, comprising the right side of the body with parts of the right ramus, and the left half of the body of the lower jaw. The temporary teeth and the germs of some of the permanent teeth are contained in the specimen.

Removed from a child, aged four years, who had acute periostitis after small-pox. Four years later the loss had been repaired by a strong bar of bone.

Dr. HANDFIELD-JONES.

### 204. Lower jaw, showing repair after necrosis. The right half of the body has been divided external to the canine tooth. The right ramus is smaller than the left. The teeth are absent between the right canine and the right wisdom tooth.

Due either to fracture or acute inflammation.

### 205. Right superior maxilla, showing destruction of the anterior wall of the alveolus of the canine tooth, resulting from alveolar abscess.

Mr. DOLAMORE.







206. A cavity at the root of the first left molar tooth, opening externally, and into the antrum. The bone is dilated as well as rarefied. Due to chronic alveolar abscess.

207. A leg, injected and partly dissected to show necrosis of the tibia.

From a boy who for months had discharging sinuses. The periosteum is thickened, and its deep surface is covered with granulations. It was separated from the tibia by a large quantity of pus. The cortical layer of the shaft of the tibia has undergone necrosis throughout. The medulla presents necrosed patches, alternating with patches of granulation tissue. Both epiphyseal cartilages are partly destroyed, and the ossified portions of the epiphyses have undergone necrosis. The lower articular surface is perforated, and granulations fill the ankle-joint, about which there were several sinuses. The affection probably began as acute osteomyelitis. Removed by amputation. Mr. OWEN.

208. Lower jaw, with deposit of new bone, due to periostitis.

209. Necrosis of the left half of the lower jaw. Mr. LANE.

210. Humerus, showing changes due to acute osteomyelitis. The upper epiphysis is separated from the shaft, but united to the new sub-periosteal bone. The upper end of the shaft is completely necrosed and separated. The medullary cavity is filled with pus, and the surrounding bone is extensively necrosed and ensheathed by a thick layer of new bone. Mr. OWEN.

211. A long tapering sequestrum from the tibia. The whole thickness of the bone has perished only at the lower end.

Due to acute osteomyelitis.

212. Tibia and fibula, with sequestrum. The shaft of the tibia is almost entirely of new formation. The external and posterior surfaces of the sequestrum look as if worm-eaten, showing that there a little of the original bone survived. The extremities of the sequestrum are irregular, indicating that the separation was natural.

From a woman, aged twenty-two, who had acute osteomyelitis when under treatment for secondary syphilis. The patient died of acute yellow atrophy of the liver at the Lock Hospital ten years after the sequestrum was removed. She was employed as a servant at the Hospital during that time. Mr. LANE.

213. A central sequestrum, removed from the radius, with portions of the involucrum removed by the trephine and forceps.

214. Necrosis of a considerable part of the clavicle.

215. Acute osteomyelitis of the humerus. The medulla is infiltrated with pus and entravasated blood; the more liquid part has escaped, leaving cavities.

From a man, aged fifty-two, on whom secondary amputation was done for acute arthritis, following a wound of the elbow-joint. Mr. HAYNES WALTON.

216. Radius and ulna, showing the results of diffuse suppuration of the forearm.

From the same case as No. 138. Amputated nine weeks after the injury was received. Mr. LANE.

217. Bones of the thumb. The terminal phalanx except at the base has undergone necrosis.

Due to whitlow *i.e.*, acute periostitis, from a poisoned wound. Mr. S. LANE.

218. Necrosis of the upper end of the femur, separation of the head at the epiphyseal line. Anchylosis of the hip. There is a thick subperiosteal deposit over the sequestrum.

A case of acute osteomyelitis, following amputation for sarcoma of the lower end of the femur. The patient lived six months after the operation. Mr. S. LANE.

219. Necrosis of the femur. The sequestrum is in process of separation.

Mr. S. LANE.

220. Necrosis, due to acute osteo-myelitis of the femur. The sharp lower end of the sequestrum has by its pressure perforated the lower epiphysis and entered the knee-joint. The space between the sequestrum and the involucrum is filled with pus.

The disease had lasted eight years.

Mr. PEPPER.

221. The section corresponding to No. 220, macerated and dried. The patella and bones of the leg are atrophied from disuse.

222. Superficial necrosis at the back of the lower end of the femur. The result of acute periostitis. The exfolium is in process of separation. There is a deposit of new bone around it.

From a boy aged seventeen, who had the limb amputated for secondary hæmorrhage after a popliteal abscess had been opened.

Mr. W. COULSON.

223. Sequestra.

Removed by Syme, at Edinburgh, from the tibia of a patient, aged nineteen. Sinuses had been discharging for nine years. Healing was complete in a month.

Dr. MURCHISON.

224. Necrosis of the femur of a young subject. For four inches all but a thin lamella of the bone has perished. There is abundant formation of new bone.

225. Necrosis of the femur from acute osteo-myelitis.

226. Necrosis of part of the shaft of the femur. The lower edge of the sequestrum shows that an attempt has been made to remove it. The involucrum is of great thickness. There are numerous cloacæ.

227. Necrosis of the tibia. The extremities of the original bone alone remain held together by a thin shell of new bone.

228. Abscess in the compact tissue of the tibia.

From a case of acute periostitis.

Mr. S. LANE.

229. Acute osteomyelitis of the left tibia. The bone is sawn in several directions. The medulla is infiltrated with pus. At each end of the bone there are abscess cavities where the diaphysis





abuts on the epiphyseal cartilage, which is perforated, the suppuration extending into the epiphysis. At the upper end pus has escaped externally and into the knee joint. The periosteum is thickened.

From a girl, aged eleven, who was admitted with high fever and complaining of pain over the head of the left tibia, where was a non-fluctuating swelling. An incision was made. Five days later the head of the right tibia became painful, and on cutting down some pus escaped. Four days after this the right inner malleolus became swollen and painful. An incision showed redness and swelling of the periosteum. A little later the left ankle became swollen, subperiosteal abscess formed all along both tibiæ, and both knee-joints filled with fluid. Amputation at the left knee and subperiosteal resection of the shaft of the right tibia were performed. Mr. PAGE.

230. Portions of bone removed from the tibia by Syme at Edinburgh.

The circle of bone was removed from the sheath by the trephine. The sequestrum was divided by the bone-forceps, and removed in two pieces. Sinuses had been discharging for two years. In two months healing was complete. Dr. MURCHISON.

231. Tibia, of which the middle third has become necrosed. The new bone is weak and fractured.

From a girl, who attempted to walk too soon after a large sequestrum was removed. The new bone gave way. Amputation was done for disease of the knee-joint. Mr. S. LANE.

232. Necrosis of the lower end of the tibia. The wedge-shaped sequestrum is surrounded by granulations.

From a woman who died of gangrene of the foot.

Mr. NORTON.

233. Necrosis of the shaft of the tibia.

The lower part of the sequestrum was removed. The upper part was surrounded by a thick cylinder of new bone. The epiphyses are unaffected. The new bone is curved outwards from pressure. From a young girl. Removed by amputation five years after the injury which caused the necrosis was received. Mr. HAYNES WALTON.

234. Right tibia, showing an ossified node, which formed part of the base of a chronic ulcer.

Mr. SILCOCK.

235. Caries of the great trochanters, and necks of the femora.

From a girl who died of pyæmia, and who had bed-sores over both trochanters and pus in both hip-joints.

236. Ossification of the wall of a subperiosteal hæmatoma. A piece of bone from the femur. It is covered on both sides by fibrous tissue. In the concavity was a collection of clear serum.

From a man, who four months before received a blow which was followed by a lump.

Mr. PYE.

237. A skull, showing great thickening of the bones of the face and fore part of the cranium. The nasal cavity is obliterated, and the orbits are greatly encroached on. The frontal bone is almost an inch thick, and its sinuses are obliterated. The base as far

back as the foramen magnum is greatly thickened. There are isolated patches of thickening on the calvarium. The affected bones are porous, but very hard. The condition is termed hyperostosis. (From the dissecting-room.)

History unknown.

Mr. J. E. LANE.

238. Skull from a case of *ostitis deformans*. The bones are greatly thickened, and the diploë is replaced by dense bone. There are patches of spongy bone which contained red marrow. Here and there are patches of greatly sclerosed bone. Both surfaces of the affected parts are coarse-grained, and show deep grooves for vessels. The dura mater was abnormally adherent. From a woman of eighty-two, who died after herniotomy. Her always-prominent forehead was observed to become more prominent for three months before death. The legs (*see* No. 239) had been curved for three years. There was no pain. (Path. Trans. 1884-85).

Mr. SILCOCK.

239. Right tibia, from the same case as No. 238. There is marked curving forwards in the upper part of the bone, which is greatly thickened.

Mr. SILCOCK.

240. Tibia, affected with *ostitis deformans*. There is a general anterior curvature. The surface is rough. The compact tissue is thickened and sclerosed, especially on the anterior aspect. The extremities are not affected. Removed from a vault, where it had lain for about a century.

Mr. PEPPER.

## RICKETS.

241. Skeleton of a rachitic dwarf four feet high. The bones of the lower limbs are greatly curved. There is typical scoliosis due to the inequality in the length of the legs.

242. Skeleton of a woman with deformities due to rickets. The frontal part of the skull is narrow and prominent, and the region of the anterior fontanelle is flat and depressed. The bones of the face are extremely small. There is lateral curvature, the lower dorsal vertebræ being chiefly affected. The pelvis shows arrested growth and deformity tending to the trefoil shape.

243. Sternum, costal cartilages, &c., from a rickety boy. There is a marked lateral groove on each side of the sternum (pigeon-breast). In addition to this the sternum is bent into the shape of an "S."

244. The anterior extremities of six ribs at the junction with the cartilages, showing the 'rickety rosary.' The swelling is most marked on the pleural aspect. The line of union of the cartilage and the bone is irregular, and there is a considerable amount of soft spongy matter beneath the periosteum.

Mr. PYE.







245. Femur from a child aged ten years. The bone is light and spongy, and its surface reticulated and rarefied, especially at the epiphyseal lines. The small trochanter is remarkably drawn out in the direction of the psoas muscle. There is a repaired greenstick fracture of the shaft. The external callus placed in the concavity of the bend is weak and porous.

A case either of late rickets or early osteomalacia.

246. A rickety femur with enlarged extremities and curved shaft. The inner condyle is greatly enlarged.

247. Rickety femur. The neck is short and placed at right angles with the shaft, so that the head of the bone is below the level of the great trochanter.

248. Rickety femur from an adult. The bone is only half the normal length.

249. Rickety tibia and fibula. The articular ends not markedly enlarged, the shafts look as if laterally compressed (keeling) owing to a deposit of new bone in the concavity of the curves.

250. Tibia, curved owing to rickets. The extremities are greatly enlarged, there are two small osteophytes near the upper end. The section shows the deposit of new bone in the concavity of the curves.

251. Skeleton of a rickety monkey. The long bones are so soft that they bend easily with the fingers. They are greatly curved and thickened by a copious formation of soft periosteal bone. The epiphyseal cartilages are not much affected, nor are the bones of the skull.

The animal had been unwisely fed, and was so weak that it had to be killed.

Mr. BLAND-SUTTON.

#### TUBERCLE.

252. Tubercular caries and necrosis of the base of the skull. The large deficiency in the occipital bone is partly closed in by membrane. A considerable part of the petrous and mastoid bones are affected.

From a man, aged thirty, who for three years had behind the mastoid process a sinus discharging pus and necrosed bone. He had left facial paralysis and died comatose from purulent meningitis.

Mr. S. LANE.

253. Caries of spine affecting the bodies of the vertebræ, from the fifth cervical to the first lumbar. The bodies of the first five dorsal vertebræ are entirely destroyed. The laminæ are ankylosed.

From a boy, aged sixteen. A large abscess lay on each side of the front of the spine. There was also tubercular disease of the hip.

Mr. COULSON.

254. Spinal caries. The body of the eleventh dorsal vertebra has entirely disappeared. Below this, on the front of the vertebræ are granulations which lead to carious cavities in the bodies.

Mr. S. LANE.

255. Caries of vertebræ from the second dorsal to the second lumbar, and of some of the ribs. Several of the bodies have been entirely destroyed, and the resulting angular curvature is so acute that the fourth vertebra is close to the twelfth. These two vertebræ are joined in front by a bridge of newly formed bone. The right sides of the bodies are more affected than the left, so a lateral curve is added to the antero-posterior. The arches are ankylosed and the spines curved sharply downwards.

256. Caries of the last two dorsal and the first two lumbar vertebræ.

257. Caries of the dorsal vertebræ, from the seventh to the tenth. The tubercular inflammation has begun at the back of the bodies beneath the posterior common ligament, and extended to the front of the vertebræ.

From a man aged twenty-one who died of acute pneumonia. He had been engaged in athletic pursuits to within a few months of his death. He had no pain or other symptom of caries.

Dr. BROADBENT.

258. Spinal caries. The anterior common ligament is separated from the vertebræ by a space which communicated with a psoas abscess. The spines are not ankylosed.

From a boy, aged nine, who died of exhaustion and lardaceous disease. *P. M. Report, January 29th, 1888.*

259. Spinal caries. The bodies of the tenth, eleventh, and twelfth dorsal vertebræ have been destroyed, and the remains of the bodies of the eighth and ninth dorsal are fitted into the first two lumbar. The bodies of these vertebræ are sclerosed. The anterior common ligament is lifted up by the collection of pus from the level of the first dorsal vertebra to the sacrum. The intervertebral discs are extensively destroyed. The cord is unaffected.

From a boy, aged nine, who had been under treatment four years, and who died of lardaceous disease of the intestines. There was a psoas abscess on each side.

Mr. OWEN.

260. Caries of the spine. The affected part extends from the eighth to the twelfth dorsal vertebra. There is an abscess cavity containing caseous matter.

Mr. AVERY.

261. Dorsal caries. The process is most advanced on the left side of the twelfth vertebra, hence there is slight lateral curvature.

262. Spinal caries in which recovery has occurred. The cord is not compressed, though it completely fills the canal at the angle. Twelve vertebræ are involved and are firmly ankylosed. Several caseous masses are exposed.

From a youth of twenty, who died of bronchitis.

Dr. BROADBENT.





263. Extreme angular curvature. The last nine dorsal and the first three lumbar vertebræ are ankylosed together.

264. Caries, with complete destruction of the bodies of all the lumbar vertebræ. The anterior part of the sacrum is denuded, owing to the collection of pus in front of it.

From a child.

265. Caries of the last three lumbar vertebræ and the sacrum. The intervertebral discs are but little affected. Osteophytes have formed about the affected vertebræ. The fifth lumbar and fourth sacral vertebræ are joined by a bridge of bone. The front of the sacrum is affected by pus collecting upon it.

From a soldier, aged twenty-two, who strained his back by lifting a heavy weight two years before his death. There was a large psoas abscess on each side. That of the right side was opened. The patient died of pyæmia. After death thrombosis of the inferior vena cava was found together with purulent ascites. The patient never had any pain in the back, and to the last the movements of the spine were quite free.

MR. SPENCER-SMITH.

266. Caries affecting chiefly the first sacral and the last lumbar vertebræ, and the disc between them, so as to leave a space which was filled with pus and communicates with a psoas abscess. The walls of the latter are hard and rough. The microscope shows that they have the structure of imperfectly formed bone.

From a child, aged five years.

MR. SILCOCK.

267. Rib with carious cavities and general thickening.

268. Tubercular disease of the humerus. The rarefying process is most advanced at the epiphyseal line. The section shows that the inflammatory process has extended to the shaft, causing exfoliation at one part.

MR. S. LANE.

269. The bones at the shoulder joint. The humerus is rarefied at the upper epiphyseal line. This is probably due to tubercular infiltration. Below there are the results of septic inflammation: the periosteum is raised and exfoliation is taking place.

From a young man.

270. Tubercular disease of the lower end of the humerus, and secondary inflammation of the shaft above it, with deposit of new bone from the periosteum.

MR. HAYNES WALTON.

271. Lower end of the femur, with caries of the internal condyle, and thickening from chronic periostitis.

From a woman, aged sixty. There was white swelling of both knees and one elbow. (*See No. 272.*) An abscess formed in the popliteal space and was opened. The patient was in the hospital for eighteen weeks, and died from protracted suppuration.

MR. URE.

272. Caries of the olecranon, from the same case as the preceding specimen. There was tubercular arthritis of the elbow, with discharging sinuses.

MR. URE.

273. Bones of the arm. Extensive tubercular caries at the elbow, with extreme atrophy of the bones, which are reduced to paper-like shells.

From a boy aged seven, who died comatose from amyloid disease of the kidneys. He had also tubercular disease of the ankle.

274. Sequestrum in the lower epiphysis of the femur of a child. The articular cartilage is eroded, so that the dead bone is exposed in the joint cavity. The sequestrum is surrounded by a zone of tubercular tissue. There is an old greenstick fracture of the femur.

275. The half corresponding to No. 274 macerated.

276. The lower end of the femur containing abscess cavities, which open on the popliteal surface of the bone.

From a woman aged forty-eight. She had been treated by Mr. Lane for disease of the knee eleven years, and the knee had been straightened and fixed on a splint five years before. She had fever, and the knee was ankylosed in a rectangular position. Amputation through the thigh was done. Mr. OWEN.

277. Tubercular caries of the great trochanter.

278. The lower end of the femur of a young subject, showing a tubercular cavity in the bone and the results of a popliteal abscess.

279. Tubercular sequestrum in the lower end of the femur. The cavity in which the sequestrum lies is lined by granulations which project into the joint. Mr. URE.

280. Femur with a porous sequestrum surrounded by granulations which extend, on the one hand, to the popliteal surface, and on the other, into the joint.

From a butcher aged thirty-four, who felt pain for the first time after kneeling in his ice house. On admission, a popliteal abscess was opened. Shortly afterwards the knee-joint, and amputation was done. In the recent state the sequestrum was vascular—living sequestrum. The patient had pulmonary tubercle. Mr. OWEN.

281. Lower end of a femur, with a tubercular sequestrum surrounded by caseous matter. The cavity opens into the knee joint.

Removed by amputation from a middle aged man, who had for some years suffered from the disease. Mr. PYE.

282. Section of the lower part of a femur, showing changes due to tuberculosis. The large articular end is rarefied by the growth of tubercles in the bone; the shaft above this is sclerosed, owing to chronic inflammation beyond the area of tubercular infection. Part of the posterior surface is altered by an accumulation of pus beneath the periosteum. There is a raised lip of new bone surrounding a porous patch.

From a girl aged sixteen, whose leg was removed by amputation. Mr. PAGE.







283. Bones at the knee-joint, showing ankylosis and disease of the fibula extending into the upper tibio-fibular joint. There is a united fracture of the femur immediately above the joint.

284. Section of a left tibia. On the internal surface is an adherent scar, beneath which the bone is congested, and the cortex contains enlarged veins.

From a girl aged nineteen, who had tubercle of the lungs, glands, and skin.

Mr. PAGE.

285. Abscess cavity in the upper end of a tibia, due to acute osteitis, supervening on tubercle. The pus found its way into the joint and externally. The abscess cavity has a fibrous lining, and the bone about it is sclerosed.

286. Tubercular sequestrum at the upper end of a tibia. The shaft is perforated near the upper end. The whole length of the bone is thickened by a porous new deposit.

From a child.

287. Shaft of a tibia, with deposit of new bone. Exfoliation is in process above.

Probably tubercular.

Mr. SILCOCK.

288. Tubercular caries of the os calcis. The rarefying process has been accompanied by a deposit of new bone.

Removed by excision from a patient who had suffered from the disease for many months.

Mr. W. COULSON.

### SYPHILIS OF BONES.

289. Skull-cap of an infant, showing Parrot's nodes, due to congenital syphilis.

Mr. PEPPER.

290. Section of the ulna of an infant, showing great periosteal deposit of bone (node) due to congenital syphilis.

Other bones were similarly affected.

Mr. SILCOCK.

291. Left tibia, with a large node.

From a girl, aged thirteen, who had congenital syphilis.

292. Periosteal gumma of the anterior surface of the upper part of the tibia. Softening has occurred in three places.

From a man aged forty-six who had a gumma in the cerebellum.

293. Ethmoid bone. The vertical plate is almost entirely and the right lateral mass partially destroyed by syphilis.

294. Hyperostosis of the inner table of the frontal and parietal bones, due to syphilis.

295. Syphilitic affection of the skull, showing repair.

Mr. S. LANE.

296. Calvarium with a sequestrum, showing a serpiginous groove.

The bone was exposed at the bottom of a horse-shoe-shaped ulcer, which had existed for twelve months. The patient died of erysipelas. Syphilitic lesions were found in other parts of the body. Mr. LANE.

297. Calvarium, with syphilitic lesions. A sequestrum involving both tables, the outer more extensively than the inner. A second large sequestrum of the inner table is in process of separation.

298. Extensive syphilitic caries of the calvarium.

299. Calvarium, showing repair after syphilitic caries. Gaps remain in some places. The affected part was covered by an adherent scar.

300. Calvarium, with thickening around a circular pit on the frontal bone. The sutures are obliterated.

301. Calvarium, showing two ossified syphilitic nodes.

302. Skull, with syphilitic caries of the frontal bone.

303. Calvarium, with syphilitic lesions. There are two patches of caries, and several ossified nodes.

The patient made no complaint of the head, but at the autopsy it was noticed that the pericranium came away with the integuments.

304. Syphilitic caries of the calvarium.

305. Calvarium, showing syphilitic lesions. On the right parietal bone there is a small ossified node. Gaps have been left by the separation of sequestra.

306. Calvarium, with syphilitic lesions. In the left parietal region are several sequestra partially separated; around these the bone is irregularly thickened from past inflammation.

307. Skull, showing lesions due to syphilis. Every part is rarefied, but especially the vertex and the nasal fossæ. Mr. S. LANE.

308. Syphilitic caries of the calvarium. Both tables are extensively diseased.

309. Calvarium with lesions due to syphilis. The sutures are obliterated. In front is a large carious sequestrum, surrounded by a narrow trench of typically serpiginous outline. The trench, except at one point, extends through the whole thickness of the skull, so that the sequestrum is almost detached. There is an irregularly repaired surface towards the back of the bone.

310. Sequestrum, involving a considerable part of the frontal bone, the right nasal bone, the nasal, and a small part of the alveolar process of the superior maxilla. The frontal bone is thickened, and its margin as if worm-eaten. Removed at the Lock Hospital from a woman who lived some years afterwards. Mr. LANE.





311. Skull of the person from whom the above sequestrum was removed. The bones bounding the gap are greatly thickened. The frontal sinuses are opened. The ethmoid and nasal bones and superior maxillæ are all more or less destroyed. Mr. LANE.

312. Wax model of the face of the patient from whom the two preceding specimens were obtained.

313. Syphilitic caries of the frontal bone, with thickening around the carious areas. The left frontal sinus is opened, and the septum between the two sinuses partly destroyed.

314. Lower jaw, with exfoliation of the right ramus and of the base. The bone is perforated just behind the mental protuberance.

From a woman who died of erysipelas after operation for removal of a sequestrum corresponding to the perforation at the symphysis. The initial symptoms were those of acute periostitis. After death gummata were found in the brain and the viscera. The kidneys were granular. Mr. HAYNES WALTON.

315. Section of a humerus thickened in its lower two-thirds from syphilis. There are some carious cavities. Mr. S. LANE.

316. Section of a humerus, with thickening due to syphilitic periostitis.

317. Syphilitic periostitis of the ulna. The greater part of the shaft is covered by a new periosteal deposit, but in several places the inflammatory exudation has broken down, leaving carious patches.

318. The left femur and ulna, showing the results of chronic periostitis and osteitis due to syphilis. The cancellous tissue is largely replaced by new bone.

Removed from a man who died of fever at St. George's Hospital. He did not complain of pain in the limbs.

319. The left tibia of an adult, showing sclerosis and thickening from chronic inflammation. The upper articular cartilage is perforated at several points, showing how the disease has extended to the joint. On the shaft are numerous spots of erosion alternating with periosteal outgrowths.

From a patient who died of visceral disease.

Dr. ALDERSON.

320. The left tibia, showing changes due to rickets and syphilis. The upper part of the shaft is bent forwards and outwards, so that the articular surfaces look outwards. The bone is thickened by the deposit of bosses of dense bone.

321. Section through the shaft of a tibia. There is a central sequestrum lying in a cavity, which communicates with the exterior by an aperture surrounded by carious bone. Around the sequestrum the bone is sclerosed and the periosteum thickened. Above there are several nodes.

Removed by amputation from a girl aged fifteen. There had been pain and a discharging sinus for years. The bone was elongated and bowed forwards, so that the ankle was fixed in the extended position.

Mr. OWEN.

322. Right tibia, with a node, probably syphilitic.

Recovered from a vault which had not been opened for a century. Mr. NORTON.

323. A tibia, thickened by syphilitic inflammation. New periosteal bone covers the whole of the shaft to the depth of one third of an inch. The medullary canal is partly occupied by dense new bone.

324. Tibia and fibula with nodes and thickenings, due to syphilis.

Mr. S. LANE.

325. Tibia, showing the results of chronic periostitis and osteitis, probably syphilitic.

#### NEW GROWTHS OF BONES.

326. Section through a small spongy osteoma, removed from the great trochanter. A layer of hyaline cartilage covers the growth which consists of cancellous bone containing fatty marrow.

From a young patient.

Mr. OWEN.

327. Osteoma springing from the first phalanx of a finger. The growth consists of dense bone and is covered by a layer of cartilage.

Removed from a man, aged thirty-five. A swelling was noticed eighteen months before amputation was performed. It appeared shortly after the finger had been nipped by a rope.

Mr. PEPPER.

328. Tibia and fibula, showing multiple spongy osteomata. The two bones are joined above and below by the coalescence of adjacent growths.

Removed from a young subject. The condition was congenital.

Mr. OWEN.

329. Scapula with multiple spongy osteomata, the largest attached by a pedicle near the axillary margin. Some of the growths still preserve their covering of cartilage.

330. Spongy osteoma at the upper end of the tibia. It springs from the oblique ridge on the posterior surface, and must have displaced the fibula.

331. Subungual osteoma of a toe.

Removed from a youth of sixteen on account of severe pain which radiated up the leg and had lasted over a year.

Dr. FELCE.

332. Subungual exostosis.

Removed from the great toe of a man.

Mr. SILCOCK.

333. Chondroma at the lower end of the femur. The base is ossified and areas of calcification are scattered through the growth.

334. Chondroma springing from and surrounding the lower third of the femur. The growth is extensively ossified. The popliteal vessels are stretched over it.







335. Ossifying chondroma of the pubes. The tumour presents a lobulated surface and some cystic cavities.

From a woman aged twenty-seven, who first noticed a lump in the right groin five years before death. The tumour filled half the pelvis, distended the right labium, and bulged into the vagina. The patient became pregnant three times during the course of the disease. The last delivery was effected by embryotomy. Growth was rapid after this. Caustics were applied, part of the growth necrosed, and the patient died in ten days.

Mr. S. LANE.

336. Chondroma springing from the plantar aspect of the ungual phalanx of the great toe.

Removed by amputation.

337. Sarcomatous growth replacing the lower two-thirds of the femur. Histologically it is a chondro-myxosarcoma.

From a girl aged fifteen, who first noticed a swelling a year before. Amputation was done at the hip by skin-flaps. The patient was quite well four years after the operation.

Mr. PEPPER.

338. Sarcoma of the ilium. There are two separate growths. One occupies the pectineal line and adjacent part of the bone extending round the great sciatic notch to the external aspect. The obturator vessels and nerve are stretched over the inner part of the growth. Histologically the growth is a perfect example of alveolar sarcoma.

From a woman aged fifty-two. The first symptom was pain in the knee and thigh. There were pulsating swellings in the groin and the buttock. Distinct bruit was heard, and the swellings were reduced by pressure. Aneurism of the internal iliac was diagnosed, and the operation for ligature of the common iliac was undertaken. Death from peritonitis followed. The peritoneum was found to be wounded and the ligature to be placed on the upper end of the external iliac.

Mr. HAYNES WALTON.

339. Sarcoma of periosteal origin, involving the right half of the sacrum and both surfaces of the right ilium.

The growth extends into the sacro-iliac joint. From a woman, aged twenty-eight, who died after an operation for partial removal. Histologically the growth is chiefly composed of large round and spindle cells.

340. Sarcoma of the patella. Some of the articular cartilage still remains, the rest of the patella is replaced by the growth which has extended into the knee-joint, causing inflammatory changes. The margin of the growth is ill-defined. Above, it infiltrates the quadriceps, below, it fills the space between the ligamentum patellæ and the tibia. In front the growth projects as a reniform mass. A white line traverses the anterior part of the growth. It represents the bursa patellæ, which has first been pushed forwards and finally penetrated by the growth. The skin has given way, allowing a fungating mass to project through it.

Removed by amputation from a woman aged sixty-three. Symptoms began three months before admission. The knee-joint was distended and the soft elastic growth simulated effusion into the prepatellar bursa. This was aspirated and afterwards incised. The growth then began to fungate and copious hæmorrhage occurred. The nature of the disease being recognised the limb was successfully removed. The microscope shows the growth to be a sarcoma of round and spindle cells.

341. Sarcoma of the lower part of the tibia. The growth has extended into the medullary cavity and down to the articular cartilage which is not affected. There are some cystic cavities in the growth.

From a girl aged eighteen. There was no pain, and the patient could walk well. Mr. W. COULSON.

342. Congenital sarcoma (round-celled) springing from the periosteum of the frontal bone. See No. 757. Mr. S. LANE.

343. Sarcoma of rib. The growth is encapsuled. The primary growth was in the mediastinum.

From a man aged fifty-two, who died of dyspnœa. Dr. BROADBENT.

344. Subperiosteal cystic sarcoma of the lower end of a femur.

From a person under twenty.

345. Large periosteal sarcoma of the femur. The bone is curved forwards from weakening of the anterior layers of the compact tissue. The tumour is composed of large round and myeloid cells.

From a woman of twenty-one. There was only a month's history of the growth. Amputation at the hip was performed. The wound healed, but the patient died of bedsores and exhaustion. Mr. LANE.

346. Subperiosteal sarcoma of the femur. The large venous spaces are injected. The growth has entirely replaced the substance of the femur at one part.

347. Sarcoma at the upper end of the tibia, injected. Mr. S. LANE.

348. Periosteal sarcoma, with a limited attachment to the head of the tibia. The growth is lobulated and encapsuled. It is composed of small spindle cells.

From a man aged twenty-eight. History of injury. Mr. SPENCER SMITH.

349. Subperiosteal sarcoma of the upper end of the tibia of a young person. The growth has infiltrated the bone to such an extent that the latter has been broken in mounting.

350. Round-celled sarcoma of the femur. The lower third of the shaft of the bone is infiltrated by the growth.

From a young person.

351. Sarcoma, springing from the temporal bone. Externally it is ulcerated. Internally it has pressed on the brain and cerebellum.

352. Sarcoma of the occipital bone. At one part the growth has destroyed the structures from the skin to the brain, causing the latter to protrude. Mr. J. LANE.

353. Sarcomatous nodule springing from the diploe and projecting from the inner surface of the calvarium. The microscope shows mixed round and spindle cells.





354. Part of a calvarium with a nodule of growth arising in the bone and pushing forward the dura mater and part of the frontal bone, with nodules of growth. The microscope shows a mixed-celled sarcoma.

From a female child aged thirteen months who died of multiple sarcomata, which appeared in all parts of the head, and grew rapidly, blocking the nasal passages, almost occluding the pharynx and causing the eyes and cheeks to project.

355. Lower end of a femur, macerated to show the ossified base of a peripheral sarcoma. In this case the ossification is in the form of acicular outgrowths.

From a boy aged sixteen.

Mr. S. LANE.

356. The opposite half corresponding to No. 355, preserved in spirit.

Mr. S. LANE.

357. Clavicle covered with acicular spicules, which formed the base of a mixed-celled subperiosteal sarcoma.

From a boy aged fourteen who had a tumour covering the shoulder, and extending down to the nipple. Death was due to pressure on the trachea. There was a history of injury.

Mr. W. COULSON.

358. A scapula, with its axillary margin expanded and partially absorbed by a central sarcoma.

Mr. S. LANE.

359. A calvarium, showing absorption and expansion in several parts. The result of central sarcomata.

Taken from a man aged forty-five who had secondary growths in the spine, ribs, sternum, &c. A swelling was noticed in the occipital region, three months after the patient had received a blow on the back of the head. The swelling enlarged, became pulsatile, and gave out a bruit. On compressing both occipital arteries the pulsation and bruit ceased, and the swelling gave place to a depression. These phenomena caused a diagnosis of aneurism to be made, but the expansion and thinning of the bone at the margin led to the recognition of sarcoma. Both occipitals were tied and growth was arrested locally, and the patient died twelve months after the appearance of the lump from implication of the spinal cord.

Mr. PEPPER.

360. Tibia and fibula, showing the ossified part of a periosteal sarcoma.

The bones below the tumour were the seat of chronic inflammation. Churchyard specimen.

Mr. S. LANE.

361. Central sarcoma of the lower end of the femur.

The bone is greatly expanded and reduced to a thin shell which forms part of the capsule of the tumour. The articular cartilages are unaffected. The growth is soft in some parts, in others it is cartilaginous or ossified. There are numerous cysts. It has the histological characters of mycoid sarcoma. *Path. Trans.*, Vol. VII., 1855-56.

362. Central sarcoma of the tibia arising in the upper part of the diaphysis. The epiphysis is intact. The bone is expanded and thinned. The tumour shows soft medulla-like tissue, alternating

with firmer bands, which the microscope shows to consist of fibrous tissue, containing a few cells, while the softer parts consist of round, oval, and giant cells.

Removed from an otherwise healthy girl aged fourteen who had injured the knee thirteen months before, and had complained of constant pain. The circumference of the limb was increased by one inch and a half. There were softening and crackling at one point. There was no recurrence eighteen months after amputation.

Mr. OWEN.

363. Secondary sarcoma of the outer end of the clavicle.

From a patient aged thirty-eight who died of general sarcoma. The microscope shows small round cells and a good deal of cartilage.

364. Upper end of the left femur expanded and rarefied by a central sarcoma.

Removed from a woman who died from secondary affection of the viscera.

Mr. COULSON.

365. Periosteal sarcoma of the lower end of the femur. The base of the growth is ossified. The growth has invaded the medullary canal and is extending upward along the posterior border of the bone.

From a youth, who seven months before amputation was performed, felt, while running, something give way. The knee remained enlarged and painful from that time.

Mr. OWEN.

366. The remainder of the femur from the same patient as No. 365.

Removed six weeks after the amputation, on account of pain and enlargement of the end of the bone.

Mr. OWEN.

367. Spontaneous fracture of the femur, due to sarcoma. The growth springs from the medullary cavity and projects forwards, entering the knee-joint. The microscope shows round and spindle cells, and in the central part some cartilage and bone.

Removed by amputation from a man aged seventy who had felt pain in the knee for eighteen months, when the femur gave way as he was sitting down. The tumour then appeared, and amputation became necessary. The growth was of central origin.

Mr. URE.

368. Ribs, atrophied and thinned. The cortical layer presents numerous oval openings around which the bone is very slightly expanded. The calcified costal cartilages and almost all the bones were similarly affected.

From an old woman. Probably a case of multiple sarcoma. Mollities ossium would have given rise to a similiar condition, but without expansion of the bone.

Dr. SIBSON.

369. Calvarium from the same case as No. 368. The rarefaction is very symmetrical and the expansion is considerable.

Dr. SIBSON.

370. Small-round-celled sarcoma springing from the second phalanx of the great toe.

Mr. S. LANE.

371. Sarcoma of the tibia and astragalus, removed from a man aged thirty.









372. Bones from the other half of the same foot as No. 371, macerated to show destruction of the bones by the new growth.

373. A sarcoma of the femur, the upper part of which is distended by the growth which was soft and has fallen out. From the periosteum of the bone enclosing this cavity springs a large mass of osseous and cartilaginous tissue containing cysts due to mucoid degeneration.

Removed after death from a man aged forty. Pain began four years before. The patient refused amputation and died of exhaustion. Mr. S. LANE.

374. A cranium affected with secondary carcinoma. Externally the growth occupies the temporal fossa, internally it nearly fills the middle fossa. The mass is distinctly alveolar, the chief septa standing at right angles to the bone, and being ossified to a considerable extent. The growth has traversed the dura mater at one point.

Removed from a man, aged sixty-one, who for five months had complained of "sciatica" and a lump on the left side of the head. He had left facial paralysis, left ptosis, impairment of vision in the left eye, and, later, dementia. At the autopsy a tumour of the prostate (No. 1240) was found. The iliac and lumbar glands were also affected. The microscope showed the growth to be a carcinoma of the glandular type, the secondary growths having a structure similar to that in the prostate. (See No. 375.). *Path. Trans.*, Vol. 35, p. 244. Mr. SILCOCK.

375. Femur fractured where it is the seat of a new growth. The periosteal part of the growth has a distinctly alveolar structure. The chief interalveolar septa are placed perpendicularly to the surface of the bone as in No. 374. The compact tissue is infiltrated, as is also the medulla. The upper end of the bone was so soft that the neck gave way in disarticulating. Some repair has taken place at the seat of fracture.

From the same man as No. 374. The fracture took place spontaneously as the patient was turning over in bed. Mr. SILCOCK.

376. Secondary cancer, affecting the tenth and eleventh dorsal vertebræ. The growth covers the right side of these bones, and extends inwards, dividing the disc between them into two parts and projects backwards, pushing the dura mater against the cord. A similar growth was in the right lung, the left suprarenal, and both kidneys. The growth is alveolar, the spaces being filled with large epithelial cells.

The specimen was taken from a woman, aged thirty-five, who had paraplegia up to the level of the anterior superior spine of the ilium, and who died of cystitis five months after the appearance of the first symptom, pain in the back. Dr. ALDERSON.

377. Half corresponding to No. 376 macerated, showing absorption of vertebræ by growth.

Dr. ALDERSON.

378. Cancer of the sternum. The growth has entirely destroyed the greater part of the bone. The minute anatomy resembles that of scirrhus of the breast.

Mr. S. LANE.

379. Cancer of a rib, secondary to cancer of the ovary.

Taken after death from a woman aged twenty-five.

380. Cancer of the shaft and lower extremity of a femur. The normal substance has been wholly replaced by the growth, only the articular surfaces of the condyles and a little of the subjacent bone remaining.

381. Tibia macerated to show the effects of infiltration of bone by epithelioma of the skin. The walls of the alveoli of the part of the growth connected with the bone are ossified, and outside the infiltrated part is a sub-periosteal deposit of new bone, due to chronic inflammation.

MR. S. LANE.

### HYDATIDS OF BONE.

382. A lamella of bone removed from a tibia, which was distended and thinned by hydatids from its upper end nearly to the ankle. Numerous small cysts adhere to the fragment of bone, and the microscope shows these to be hydatid cysts.

From a woman aged twenty-eight. The bone had been slowly enlarging for ten years. There was considerable pain which prevented walking. Finally the tumour ruptured and discharged a quantity of small cysts. This portion of bone was removed in order to scrape out the cavity. Hundreds of cysts, varying in size, were removed, some being found close to the ankle. Eight weeks later the necrosed fragment (No. 383) was removed, and the cavity was cauterised with nitrate of silver. After this the cavity granulated up.

MR. W. COULSON.

383. Piece of dead bone covered with hydatid cysts from the same case as No. 382.

MR. W. COULSON.

384. Tibia, containing hydatids. A cyst remains in the lowest cavity. Suppuration has taken place in all the cavities. The bone is sclerosed. The scar on the inner surface is due to an operation for chronic osteitis. When part of the bone had been removed hydatids escaped from the wound.

MR. SPENCER SMITH.

385. The upper part of the half tibia corresponding to No. 384. The cysts are well seen, one of them is subperiosteal. The periosteum was greatly thickened.

MR. SPENCER SMITH.

### GROWTHS, &C., OF THE GUMS AND JAWS.

386. Cast of the hard palate and dental arch of a woman aged twenty-one. There is symmetrical hypertrophy of the gums opposite the molar teeth. The growths were removed and were found to consist of a dense fibrous tissue.

MR. OWEN.

387. Section through a tooth and its alveolus, showing an epulis arising from the periosteum lining the alveolus. The microscope shows a fibro-cellular growth ossifying at the base.





388. Upper jawbone with a misplaced canine tooth, which lies obliquely, only just reaching the surface.

389. Part of a lower jaw, with a multiple cystic growth, which expands and thins the bone. The microscope shows the growth to consist of epithelial columns supported by fasciculi of oat-shaped cells. The central cells of the epithelial columns have undergone a change exactly resembling that seen in enamel organs: the cells become branched, forming mucoid tissue. The cysts are formed by the accumulation of mucoid intercellular substance and disintegration of branched cells.

Removed from a woman aged thirty-five. There were no secondary growths.  
Mr. OWEN.

390. Multiple cystic tumour of the left half of the lower jaw. The inner and outer walls of the bone are in parts completely absorbed. The minute anatomy resembles that of No. 389, save that the supporting tissue contains fewer cells.

From a man aged twenty-five. It had been growing steadily for seven years, occasioning very slight pain.  
Mr. LANE.

391. Multiple cystic tumour of the lower jaw. The bone is greatly expanded and in places completely absorbed. The minute structure resembles that of No. 389, except that the supporting tissue is fibrous and bony.

Mr. JAS. LANE.

392. A growth springing from near the alveolar margin, and involving the greater part of the body of the lower jaw. Opposite the symphysis the growth projects in front and behind, and has caused absorption of the bone except at its lower border. The cut surface shows the presence of small cysts. The minute structure resembles that of Nos. 389, 390, & 391.

393. Growth of the lower jaw, springing from the symphysis and neighbouring parts and projecting forwards. The growth is of soft consistence. Septa run in from the capsule. There are numerous cysts which resemble histologically those of the preceding specimens. The abundant tissue around the cysts has the character of a mixed-celled sarcoma.

From a middle-aged man who said he had an epulis removed from the same part of the jaw three years previously.  
Mr. OWEN.

394. Middle part of the lower jaw, showing absorption and expansion due to myeloid sarcoma (malignant epulis).

Removed by Syme at Edinburgh from a man aged fifty-one, who died from visceral growths six months after the operation.  
Dr. MURCHISON.

395. Spindle-celled sarcoma of the autrum. The growth is encapsuled and lobulated. It was attached to the inner and anterior walls of the antrum, but free elsewhere. One process of the growth has caused absorption of the anterior wall of the autrum, and projects into the cavity of the mouth. The cut surface presents a grey surface traversed by white bands. The upper jaw was removed with the tumour.

The patient, a middle-aged woman, was well six years after the operation.

Mr. PEPPER.

396. Melanotic sarcoma of the autrum with the right upper jaw.

Removed from a man who had complained of blocking of the nostril for three weeks. A black mass was seen projecting into the nasal cavity. As the growth was found to fill the autrum, the whole superior maxilla was removed. *B. M. J.*, Aug. 18, 1883. Mr. NORTON.

397. Epithelioma arising in the mucous membrane and infiltrating the alveolar margin of the lower jaw.

398. Cancerous growth, arising probably in a salivary gland, and implicating the lower jaw. The microscope shows a spheriodal-celled cancer, with some mucoid degeneration.

From a man of fifty. Five months before the operation he noticed a lump which was at first movable on the jaw and placed beneath the mucous membrane. Later on the growth became attached to the jaw and ulcerated. After removal the growth soon recurred. Mr. PEPPER.

## SERIES V.—JOINTS AND BURSÆ.

399. Commencing ankylosis of the ankle and tarsal joints. The articular cartilages have been absorbed in places, and the opposed articular surfaces were connected by a thin layer of lymph.

From a man who had had œdema of the leg and foot due to a compound fracture. The limb was immobilised for four years. (*See No. 88.*) Mr. OWEN.

400. An elbow-joint, showing the effects of arthritis due to a compound fracture of the humerus above the joint. Suppuration took place in the joint.

Removed by amputation from a man aged seventy-five. Mr. LANE.

401. A knee-joint, showing the results of suppuration. The synovial membrane is opaque and partly covered by shreds of lymph. The articular cartilages are covered with lymph and partly detached from the bone. Mr. S. LANE.

402. A knee-joint affected with suppurative arthritis. The synovial membrane is dull and opaque. The cartilages have lost their polish, and here and there are completely removed, looking as though they had been dissolved away.

From a man who had a subcutaneous abscess following a graze. Effusion into the joint supervened, but at no time did the patient feel any pain. Five weeks after the original injury the joint was tympanitic. On making an incision pus and gas escaped. Death from pyæmia followed. Mr. J. LANE.

403. A knee-joint. The cartilages are eroded in several places. The internal condyle presents a granulation-filled cavity; a similar







cavity is seen on the inner facet of the tibia. There is a quantity of granulation tissue beneath the tendo achillis and the capsule. There is slight lipping at the margin of the articular surface.

From a woman aged forty-five, who first noticed pain and swelling when in bed for a bad cold. No history of injury. After three weeks she came to the hospital with a temperature of  $102^{\circ}$  and the knee tense, shining, and hot. After three and a half months amputation was done. After the operation there was transient effusion into the other knee. The case seems to be one of osteoarthritis made more rapid by a rheumatic attack. Mr. OWEN.

404. A knee-joint affected with suppuration, due to osteomyelitis of the tibia.

From a boy, aged thirteen, in whom after a slight injury abscesses formed rapidly along the leg, in the ankle, and lastly in the knee. Mr. W. COULSON.

405. A loose body removed from the knee-joint. It consists of tough laminated blood-clot.

From a girl, aged sixteen, who a month before admission sprained the knee. An incision was made on the inner side and the loose body protruded. It was attached above the patella, and could not be felt before the operation. Mr. OWEN.

406. A knee-joint after suppurative arthritis. The articular surfaces are covered by soft fibroid tissue. The cartilages are extensively eroded.

From a woman aged thirty who was suffering from puerperal thrombosis when the joint became affected. Mr. URE.

407. A knee-joint, with hypertrophy of the synovial fringes, due to chronic synovitis. Histologically the outgrowths consist of fibrous tissue which sometimes contains cartilage cells.

408. A knee-joint, showing early fibrous ankylosis.

409. The upper end of a humerus. The head has been destroyed by tubercular disease.

From a woman aged twenty on whom Syme performed amputation.

Dr. MURCHISON.

410. Tubercular caries of the upper end of the humerus. The head is completely destroyed. The sequestrum attached to the specimen was found loose in the joint.

Removed by amputation by Syme from a woman aged twenty-two. Pain and swelling had existed for two years.

Dr. MURCHISON.

411. The head of a humerus containing a tubercular sequestrum.

Removed by excision from an old man, a butler, who for two months had been aware that his shoulder was painful and swollen. Excision by the anterior incision was successfully performed.

Mr. OWEN.

412. Tubercular disease of the carpus and the wrist-joint. The bones are carious, and the cavity left by their partial destruction opens externally by two sinuses. The tendons of the extensor carpi ulnaris and extensor minimi digiti are bound down by inflammatory thickening.

Mr. NORTON.

413. Complete osseous ankylosis of the carpal, carpo-metacarpal and wrist joints. The wrist is slightly luxated forwards. The section shows the continuity of structure.

Due to tubercular disease.

414. An elbow-joint with fibrous ankylosis, due to tubercular arthritis.

From a boy of fifteen who was killed by the kick of a horse. He had good use of the arm.

415. Bony ankylosis of the elbow, due to tubercular disease.

416. A hip-joint with a tubercular cavity in the neck of the femur.

417. Tubercular hip-disease, with extensive destruction of the bones. There is a sequestrum at the root of the neck.

Removed from a boy aged fourteen who died of amyloid disease. There were sinuses about the hip. Mr. COULSON.

418. Tubercular caries of the acetabulum and of the head of the femur.

From a middle-aged patient.

Mr. S. LANE.

419. Caries of the head of the femur and of the acetabulum, with deposit of new bone on the os innominatum.

From a man aged twenty-seven, who first felt pain nine months before death, which was due to exhaustion after abscesses had been opened. The right knee was similarly affected. Mr. COULSON.

420. Tubercular disease of the hip. The articular cartilage of the head of the femur has been destroyed and the articular surface is rarefied. The femur is dislocated upwards, and by pressure has formed a hollow which is surrounded by osteophytes.

421. Fibrous ankylosis of the hip.

From a boy aged nine, who had hip-disease for three years and who died of tubercular peritonitis.

422. Half of the hip-joint corresponding to No 421, dried.

423. Bony ankylosis of the left hip. The bones have united in the position of partial flexion and abduction.

424. Tubercular disease of the hip. The femur and the acetabulum are both carious. There is dorsal dislocation of the femur, the shaft of which is bent backwards and the lower end enlarged from rickets.

From a girl aged five. There were sinuses about the hip and some fibrous union between the femur and the acetabulum. Mr. COULSON.

425. An innominate bone altered by tubercular disease. The bone is expanded, simulating the effects of a central sarcoma.

From a boy aged ten who died of typhoid. There was a pelvic abscess containing putty-like matter. The head and neck of the femur were buried in the acetabulum. Dr. ALDERSON.





426. Part of an os innominatum and the upper end of a femur. The bony floor of the acetabulum has been replaced by tubercular inflammatory tissue which extends into the obturator internus. The head of the femur is carious. There were several loose pieces of dead bone and a little thin pus found in the joint.

From a boy aged fourteen who died with symptoms of general tuberculosis.

Mr. PAGE.

427. Terra-cotta model of a knee affected with white swelling, *i.e.* tubercular arthritis.

Mr. L. VINTRAS.

428. A knee-joint affected with tubercular arthritis. The synovial membrane is converted into a thick mass of granulations which have spread over the cartilages and caused their absorption.

Mr. URE.

429. Destructive inflammation of the knee-joint owing to perforation of the head of the tibia by a tubercular abscess.

From a woman of fifty-two who had complained of pain about the head of the tibia for two years, when acute arthritis came on, and who died after amputation through the thigh had been done.

Mr. URE.

430. A patella and surrounding parts, showing miliary tubercles scattered in the synovial membrane.

Removed in performing arthrectomy on a young patient.

Mr. OWEN.

431. Anchylosis of the knee-joint due to tubercular arthritis. The displacement of the tibia backwards and outwards with outward rotation is characteristic. There is a firmly united fracture.

From a man aged forty-two, who died of acute phthisis.

Dr. ALDERSON.

432. Tubercular disease of the knee-joint. Stalactitic formations on the patella.

Mr. S. LANE.

433. Tubercular disease of the knee-joint. The tibia has been dislocated backwards and anchylosis has taken place between it and the femur in the flexed position.

434. Osseous anchylosis of the knee after tubercular arthritis. Both the tibia and the patella are in structural continuity with the femur. The tibia is displaced backwards.

435. Bones at the knee-joint, showing anchylosis and extensive caries. The patella is anchylosed to the outer condyle.

Removed by amputation from a man aged forty-four. The joint had been affected from childhood, but up to a few weeks before the operation the patient could walk fairly well.

Mr. URE.

436. Tubercular disease of the knee-joint. The inner part of the head of the tibia and the upper end of the fibula have suffered most. There is a repaired fracture of the femur.

The specimen was removed by amputation from a woman aged fifty. The first symptoms appeared some years after the bone was broken.

Mr. LANE.

437. Ankle and astragalo-scaploid joints, showing tubercular disease of the bones and synovial membranes.

Mr. SPENCER SMITH.

438. Part of a foot with the transverse tarsal joint opened. The synovial membranes are replaced by granulation-tissue which when fresh was semi-transparent. The articular cartilages are partly destroyed by the granulations.

From a woman of twenty-two who had pain for three months after a sprain.

Mr. URE.

439. Tubercular caries of the astragalus, which has undermined and perforated the cartilage extending into the ankle-joint.

Removed by amputation from a man who afterwards died of phthisis. Mr. URE.

440. Tubercular caries and ankylosis of the astragalus and os calcis, with disease of the ankle-joint.

From a woman aged twenty-eight.

441. Ankylosis, following sacro-iliac disease, secondary to tubercular disease of the ilium.

442. Caries of ilium and ankylosis of the right sacro-iliac synchondrosis, with arrested growth of the right side of the sacrum.

From a man aged twenty-one, who died from suppuration due to caries of the bones. The disease began at the age of eight, some months after the boy was struck on the hip by a stone.

443. Ankylosis of the atlas, with the occipital bone of one side. There is defective development of the posterior arch.

From a subject under twenty. The condition is found in dock-porters who carry heavy weights on the head.

444. Ankylosis of the axis and third cervical vertebra.

Probably due to pressure as in No. 443.

445. Metatarso-phalangeal joint. The ends of the bones are enlarged and sclerosed. At one spot the cartilage covering the metatarsal bone presents a thickening which is ossified in the centre. A nodule of cartilage-covered bone has formed in the capsule. The synovial villi are hypertrophied.

From a gentleman who sprained the joint in taking off his riding-boot some years before amputation was required on account of pain.

Mr. PEPPER.

446. The shoulder-joint of a leopard affected with osteo-arthritis. The opposed articular surfaces are porcellaneous and devoid of cartilage. Nodules of bone have formed at the margin of the cartilages, and in and about the capsule.

The animal was very old. It could climb up a tree stump but came down by rolling.

Mr. BLAND SUTTON.

447. Cervical vertebræ affected with osteo-arthritis.

448. Dorsal vertebræ affected by osteo-arthritis.

449. Dorsal and lumbar vertebræ affected by osteo-arthritis.







450. Shoulder-joint affected with osteo-arthritis. The cartilages are eroded and the synovial villi hypertrophied. The tendon of the biceps and the capsule have been softened and destroyed, allowing the humerus to play on the acromion which also shows inflammatory changes. The remainder of the biceps tendon is attached to the upper end of the bicipital groove. Mr. OWEN.

451. Osteo-arthritis of the shoulder. There are ossa-additamenta in the coraco-acromial ligament. The capsular ligament has been destroyed, allowing the head of the humerus to rub on the under surface of the acromion.

452. Shoulder-joint, showing the effects of osteo-arthritis. There is a subcoracoid dislocation. The head of the humerus is rarefied.  
From an old man.

453. Bones of the wrist-joint affected with osteo-arthritis.  
From a middle-aged woman.

454. Upper end of the femur affected with osteo-arthritis. The neck is shortened, there are abundant exostoses. Mr. LANE.

455. Osteo-arthritis of the hip, causing 'dislocation by deformation.'  
Mr. W. COULSON.

456. Osteo-arthritis of the hip, causing 'ankylosis by deformation.'  
The head and neck have been absorbed, and the new bone thrown out forms two projecting rims which fit into each other. The ankylosis is virtual. Mr. SILCOCK.

457. Osteo-arthritis of the upper end of the femur. The articular surface is eburnated, but the shell of sclerosed bone is absent in parts, exposing the cancellous tissue. Mr. LANE.

458. Section through a knee-joint. The prepatellar bursa is altered by chronic inflammation and the joint shows changes due to osteo-arthritis.  
From a charwoman.

459. Bones of a knee-joint affected with osteo-arthritis. The articular cartilages have been entirely removed by the disease. The bone is eburnated in places, porous elsewhere. The proliferation of exostoses is extreme, forming a hood-like expansion on the femur. Mr. PEPPER.

460. Osteo-arthritis of the knee in an early stage. The cartilages are velvety from separation of the fibrillæ of the matrix by the escape of the rapidly-proliferated cells. The synovial fringes are enlarged. The lip of new bone is beginning to project on the outer condyle—a useful diagnostic sign.

461. Loose bodies from a joint affected with osteo-arthritis.

462. Osteo-arthritis of the metatarso-phalangeal joint of the great toe.  
Mr. S. LANE.

463. Elbow-joint from a case of chronic gout. There is a deposit of urate of soda in the cartilage which has been destroyed at one part owing to the accumulation of crystals.
464. Knee-joint affected with chronic gout. The cartilages contain urate of soda. The synovial membrane is fimbriated.
465. Patella from a gouty knee-joint. Mr. OWEN.
466. Knee and ankle-joints, showing changes due to chronic gout and to osteo-arthritis. The smaller joints were similarly affected. The popliteal artery is atheromatous.  
From a patient aged forty-five, who died of phthisis. *P.M. Reports.* 1890.—45.  
Dr. LEES.
467. Section through the elbow-joint, showing an osteo-sarcoma attached to both humerus and ulna, and producing ankylosis.

#### EXCISION OF JOINTS.

468. Portions of bone removed by Syme in 1851 in excising the elbow of a woman aged twenty-five for tubercular arthritis.  
An H-shaped incision was made, The olecranon was first removed by bone-forceps, the lateral ligaments were then divided, and the protruding end of the humerus sawn off. The head of the radius was then removed by the forceps, and lastly the remainder of the sigmoid cavity with the saw. The patient recovered with a useful false-joint. Dr. MURCHISON.
469. Section through the femur and the tibia, showing the result of a successful excision of the knee. The epiphyseal cartilages still remain and the sawn surfaces have united firmly by bone. There is no backward displacement of the tibia.
470. Half corresponding to No. 468 macerated.

#### DISEASES OF BURSÆ.

471. Hæmorrhage into the bursa patellæ.
472. Enlarged bursa patellæ with gelatinous contents. Mr. OWEN.
473. Cast of the knee of the woman from whom the preceding specimen was removed. Mr. J. J. KNOX.
474. Large bursa patellæ removed from a workman. The contents consisted of a chocolate-like liquid loaded with cholesterine crystals. Mr. PYE.
475. Bursa patellæ affected with chronic bursitis. The walls are very thick. The cavity of the bursa is subdivided by adhesions. The spaces contained straw-coloured fluid.  
Removed from a housemaid aged twenty-eight. A lump had been forming for eight years.
776. Bursa patellæ with extremely thick walls.





SERIES VI.—DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE.

477. Epidermis of the soles of the feet separated after scarlet fever.  
Mr. E. R. OWEN.
478. A piece of skin of the breast of a girl who had erysipelas. The specimen shows natural injection of vessels, the definite limitation of the disease above, and commencing gangrene below.  
Mr. S. LANE.
479. Scales darkened by tar ointment, from a case of chronic eczema.  
Mr. E. R. OWEN.
480. Piece of skin of a child affected with small-pox.
481. Wax model of the eruption of small-pox.
482. A portion of skin and subcutaneous tissue.  
From the abdomen of a person who had been exhibited as a fat woman and who died of obesity.
483. A hand, showing the effects of long-standing cellulitis: sinuses and great thickening of subcutaneous tissues.  
From a shepherd in whom cellulites followed a wound received while skinning a sheep. Amputation was done a year later.  
Dr. LAWRENCE.
484. Skin of the scrotum thickened by old-standing fistulæ.
485. Piece of the skin of a negro who had elephantiasis of the scrotum. The corium is increased in thickness to two inches.  
Mr. JAMES LANE.
486. The hand of a negro affected with anæsthetic leprosy. The epidermal pigment has disappeared. There are several ulcers. The index and middle fingers have undergone spontaneous amputation. Some of the muscles are in a state of fatty degeneration.  
Mr. BOON, St. Kitts.
487. Hairy mole from the outer aspect of the thigh of a woman.
488. A leg of a full grown fœtus presenting a patch of altered skin somewhat resembling circumscribed scleroderma.  
Mr. J. E. LANE.
489. A horn removed from the cheek of an old lady.  
A small wart had existed for many years, and it began to grow rapidly twelve months before it was removed. In the last six weeks it doubled its size.  
Mr. COOMBE.
490. Horny growth from the cheek.  
Mr. NORTON.
491. Hypertrophied thumb-nail. The matrix had been injured by crushing two years before removal.  
Mr. SILCOCK.
492. Hypertrophied great toe-nail.  
Mr. OWEN.
493. Hypertrophied great toe-nail.

494. Hypertrophied great toe-nail resembling a ram's horn.

Dr. HUBBARD.

495. Chronic ulcer of the leg, for which amputation had to be performed.

496. Papillomatous state of the skin of the foot, due to a chronic ulcer of the leg.

497. Perforating ulcer of the foot.

From a patient who had remarkable degenerative changes in the spinal cord and nerves. In the former both grey and white matter were involved. Areas of sclerosis and of softening were found. Both anterior and posterior tibial nerves were sclerosed and of the foot were partially anæsthetic. *Path. Trans.* xxxvi, p. 63. Mr. SILCOCK.

498. A great toe showing an ulcer (perforating).

Removed by amputation. The ulcer was anæsthetic, it had reappeared after healing under treatment.

499. Keloid arising in the scar made by piercing the ear of a negro.

Mr. BOON, St. Kitts.

500. Sections of two corns.

From the sole of a heavy woman. The horny layer has separated a little in the lower specimen showing the hypertrophied papillæ.

501. Molluscum fibrosum from the skin of the back.

From a man who had had similiar growths on all parts of the skin for twenty years. Similiar nodules were found over the whole of the peritoneum. Dr. SIBSON.

502. Molluscum fibrosum.

Removed from a woman aged fifty.

Mr. OWEN.

503. Papilloma.

Removed from the labia of a woman at the Lock Hospital. Growth of twelve months' duration.

Mr. JAMES LANE.

504. Pigmented papilloma.

Removed from the abdomen of a woman, aged twenty-one. The growth appeared as a small wart in early childhood. The microscope shows that the pigment is seated chiefly in the deepest layer of the epidermis. Some large pigmented cells were also seen in the corium.

Mr. NORTON.

505. A lipoma of the subcutaneous fat, ulcerated over the most prominent part.

506. Lipoma from the buttock.

Mr. NORTON.

507. A fibro-lipoma removed from the buttock.

508. A cyst removed from over the sterno-mastoid of a girl aged eighteen. The cyst wall is fibrous and is lined by a single layer of columnar cells. The serous contents have coagulated.

Mr. OWEN.

509. A malignant growth which started in a congenital mole and which had been noticed for three years.







## 510. Sarcoma (small-round-celled).

Removed from the front of the leg of a woman aged thirty. It bled a great deal and took three months to grow.

## 511. Rodent ulcer of the ear and cheek.

From a man aged sixty-three. It had been growing for seven years when it was removed. Recurrence took place ten years later. Mr. OWEN.

## 512. A large epithelioma of the lower lip. After removal the lip was restored by a plastic operation.

Mr. OWEN.

## 513. Epithelioma of the side of the foot.

## 514. Epithelioma of the skin involving the tibia.

## 515. Epithelioma arising in the scar of a healed ulcer of the leg.

Mr. W. PYE.

## 516. Epithelioma which has destroyed the little toe.

## 517. Epithelioma of the cheek.

## 518. Epithelioma of the hand. It has destroyed the little finger.

## 519. Epithelioma of the skin of the leg. It has invaded the ankle-joint and almost amputated the foot.

## 520. A piece of skin of the face and a finger nail affected with favus.

From a woman who had favus of the scalp, face, and of about half the skin of the back, and who died of phthisis. Mr. MALCOLM MORRIS.

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SERIES VII.—AFFECTIONS OF THE MUSCLES,  
TENDONS, FASCIÆ, &c.

## 521. A forearm showing great thickening and deformity with extensive scarring.

The result of cellulitis.

## 522. Gangrene of a finger due to Raynaud's disease.

Removed by amputation.

Dr. MAGUIRE.

## 523. Senile gangrene of the toes of the right foot. The line of demarcation has formed.

Mr. PYE.

## 524. Avulsion of the last joint of the thumb, with the tendon and some of the muscular part of the Flexor Longus Pollicis.

From a boy who in falling caught his thumb in a loop of rope. Healing was rapid. Mr. SPENCER SMITH.

## 525. Gunshot wound of the hand, showing in a typical manner the small aperture of entry and the large aperture of exit.

The hand was placed over the muzzle of a shot-gun which exploded.

526. Repair of the tendo achillis after tenotomy. MR. LANE.
527. Spindle-celled sarcoma of the leg. The growth has its origin in the inter-muscular planes and is not connected with the bone.  
The patient noticed a swelling a month before amputation was performed. Later paralysis of the extensors of the toes developed from implication of the anterior tibial nerve. Death occurred five months after operation from secondary growths in the lungs. MR. LANE.
528. Soft sarcoma at the bend of the elbow. From a woman aged seventy-three.  
A similar growth had been removed three years before amputation was performed. MR. SHILLITOE.
529. Round-celled sarcoma of the thumb. MR. NORTON.
530. Sarcoma of the forearm.  
The patient, a medical student, died two years after amputation from secondary growths in the lungs. MR. S. LANE.
531. A large myxo-sarcoma of the pelvic outlet. The growth formed a great protrusion on the buttock, and caused intestinal obstruction. Its upward extent is limited by the pelvic fascia.  
From a child of eighteen months. It had been known to exist five months. Lumbar colotomy was done, and it was noticed that the extra-peritoneal operation was perfectly easy in this young child. MR. PEPPER.
532. Part of the hind limb of a dog, showing the tendo achillis a week after subcutaneous division.  
This limb was fixed in plaster. DR. WALLER.
533. Part of the hind limb corresponding to 532. The tendons were divided at the same time.  
This limb was left free. DR. WALLER.

## SERIES VIII.—DEFORMITIES, CONGENITAL AND ACQUIRED.

### SPECIMENS ILLUSTRATING POSSIBLE MODES OF ORIGIN OF CONGENITAL DEFORMITIES.

534. An embryo, about ten weeks old, in which the fronto-nasal and the superior maxillary processes are still separate, showing the condition which, when it persists, is known as double hare-lip and cleft palate. NORTH COLLECTION.
535. A fœtus within the normal membranes.  
"The crossing (right) foot retains its normal position of inversion, while the left foot lies protected in the flexure of the knee. In this case it is obvious that pressure would exaggerate the inverted position of the crossing foot."—Parker & Shattock, *Path. Trans.* 1884. NORTH COLLECTION.
536. A well-nourished fœtus of about eleven weeks.  
"The hips and knees are flexed, and the thighs rotated out normally, but in spite of abundant space within the membranes the feet have met so exactly as to produce double calcaneus."—Parker & Shattock, *Path. Trans.* 1884. NORTH COLLECTION.





537. A single monster, with total encephalocele, hare-lip, and cleft palate, spina-bifida, occulta, &c. The lower limbs are greatly deformed. The left testis was retained within the abdomen (No. 1,277). The right had left the external ring, and been displaced outwards to the ant. sup. spine of the ilium.

From a woman who had previously borne five well-formed children. In this case the liquor amnii was absent. *Path. Trans.* 1891. Mr. H. S. COLLIER.

538. Parts of a greatly-deformed foetus, produced at full term. The head is elongated vertically, and the parietal bones are imperfectly ossified. There is slight hydrocephalus, spina-bifida (myelocele), congenital dislocation of both hips, double talipes varus, and great deformity of the thorax from pressure of the feet.

There was very little liquor amnii, and five fibroids were present in the uterus. *Path. Trans.* 1891. Mr. L. DÉQUÉ.

### CONGENITAL DEFECTS OF THE CENTRAL NERVOUS ORGANS.

539. The head of an infant, showing an encephalocele projecting from the posterior fontanelle. The protrusion of the brain contains two cavities which are in communication with the lateral ventricles. It is covered by the integument and by a dense membrane continuous with the dura mater and the pericranium.

The patient lived but a few weeks and died of meningitis. Mr. OWEN.

540. The head of an infant, showing a cerebral meningocele projecting from the back part of the foramen magnum. The protrusion contains four cavities enclosed by a membrane which is continuous with the pia mater and arachnoid. The two larger (lateral) cavities communicate with the lateral ventricles, and the two smaller with the fourth ventricle. The cerebellum is represented by the flocculus and the cornucopia, the latter is three-quarters of an inch long, and connected by a fold of membrane with the external auditory meatus. The coverings consist of integument and a fibrous membrane continuous with the dura mater and the pericranium.

The infant lived about a fortnight and died of meningitis. Mr. PAGE.

541. Spina bifida (myelocele). The spinal cord at the upper part of the myelocele opens out into a layer continuous with the skin. The central canal is open at the upper end of the defect.

From a female child which lived a few hours after birth and which had also hydrocephalus and double talipes (Nos. 552—3.) On pressing the head of the cadaver the spina-bifida was floated up, and a few bubbles issued from the central canal.

Dr. M. HANDFIELD-JONES

542. Myelocele, the greater part of which has been cut away to show the sub-dural and sub-arachnoid spaces beneath it, and the manner of origin of the nerves.

543. Myelocele separated at the edges and stitched to show the origin of the nerves and the eversion of the lateral parts of the affected vertebræ.

544. Spina bifida (meningo-myelocele). The dura mater is continuous with the outer wall of the sac which the arachnoid lines loosely. The cord is adherent to the sac in the middle line. The nerves pass forwards to the intervertebræ foramina.

545. Sacral spina bifida. The filum terminale and the sacral nerves pass to the posterior wall of the sac, where the nerves pierce the arachnoid and turn back to reach the anterior sacral foramina.

From an infant who died of exhaustion. Morton's fluid was injected into the sac, which presents no trace of lymph. Mr. PAGE.

546. Large spina bifida which communicates with the spinal canal by an aperture opposite the first sacral vertebra of which the arch is wanting. There is antero-lateral curving of the spine. The nerves of the cauda equina are spread out on the walls of the tumour. They pass outwards and forwards to the intervertebral foramina and communicate by slender twigs which in some cases contain bony spicules. The ganglia of the posterior roots appear to be enlarged. The integument covering the tumour is normal.

From a man aged twenty-nine who never had sensation below the knees, and whose feet were diminutive. Up to the age of fourteen he walked with the assistance of crutches, after that he went on all fours to within six weeks of his death, when he took to his bed suffering great pain. He had control over the sphincters except when the pain was very intense. Mr. HAYNES WALTON.

#### CONGENITAL DEFORMITIES OF THE EXTREMITIES.

547. A foetal hand with six metacarpal bones and six digits.

548. A foetal hand dissected to show six metacarpal bones and six digits. NORTH COLLECTION.

549. The bones of the lower limb of a foetus. They are all abnormally thick and soft, showing a slight degree of intrauterine cretinism. There are six metacarpal bones and seven digits, and the foot is in the condition of varus.

550. A foetus showing deformities of the lower limbs. The umbilical cord was wrapped around the right lower limb, whilst the left was against the abdomen with the knee and ankle extended. The hands are also deformed by the combined effects of locking and pressure. NORTH COLLECTION.

551. A foetus in its membranes about the fifth month showing the results of intrauterine pressure. The head, face, hands, and feet are all deformed. The latter are both in the condition of equinovarus. The right foot has been dissected to show the inward deviation of the neck of the astragalus and the inward displacement of the scaphoid. The position of the hips and knees is normal, the sole of the right foot rests on the opposite buttock, that of the left crosses the dorsum of the right. There is a frontal encephalocele. Parker and Shattock, *Path. Trans.*, 1884. NORTH COLLECTION.







552. The bones and ligaments of the right lower extremity of a new-born child affected with congenital equino-varus. The ankle-joint is extended, and the astragalus is rotated in so that parts of the trochlear and external malleolar surfaces are unopposed. These unopposed surfaces are covered with fibrous tissue. The anterior half of the os calcis is bent inwards, and the hinder part of its posterior articular surface articulates with the external malleolus. The sustentaculum tali and the inner part of the scaphoid articulate with the internal malleolus, a bursa intervening.

From a child which was born with the feet bound together by the umbilical cord, and which had spina-bifida (No. 541), and hydrocephalus.

553. The left limb, corresponding to No. 552, showing depressions corresponding to the coils of the cord, and the bursa over the most prominent part of the outer side of the foot.

554. Cast of an infant's foot, showing congenital talipes equino-varus.

555. Cast of the foot of an adult with equino-varus of congenital origin. On the outer part of the dorsum of the foot are several bursæ. The sole is marked by two deep grooves, one transverse in front of the heel, another passing longitudinally forwards from the middle of this.

Taken from the foot of a patient on whom Davies-Colley's operation was performed. Mr. OWEN.

556. Spondylo-listhesis. The last lumbar vertebra and the sacrum. In the former on each side the part of the arch comprising the lamina and lower articular process were joined to the rest of the vertebra, and to each other (at the abortive spine) by cartilage only. The laminae are overgrown in length and so altered in direction that what should be the posterior surface looks upwards. The vertebra projects half-an-inch in front of the sacrum.

From a woman aged twenty-three in whom the projecting vertebra simulated an abdominal tumour. Dr. LEES.

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## ACQUIRED DEFORMITIES.

557. The lower vertebræ and sacrum of an old woman, showing scoliosis. The convexity of the lumbar curve is to the right, on which side the support was diminished by talipes (*see* No. 558). The vertebræ are ankylosed, owing to osteo-arthritis.

Dr. MURCHISON.

558. Right foot dissected, showing talipes equino-varus. The peronei are reduced to fatty tissue, showing that the deformity is due to infantile paralysis.

Dr. MURCHISON.

559. The left foot, affected with talipes equino-varus.

Removed from a girl on account of an intractable ulcer of the leg. The tendo-achillis is attached to the inner side of the os calcis. The extensor muscles, peronei, gastrocnemius, and soleus are all completely degenerated from infantile paralysis.

560. Part of a hand, dissected to show the thickened fascia causing Dupuytren's contraction of the little finger. The band is attached to the sides of the middle phalanx. It presents two nodular swellings, which were adherent to the skin. The band is quite unconnected with the tendons and the tendon-sheath, which are normal.

Mr. L. ROGERS.

561. Cast, showing Dupuytren's contraction affecting the little and ring fingers of the left hand.

562. Cast of the right hand of the same subject as No. 561. Three fingers are affected by the contraction, the ring finger less than the others.

563. A bunion, showing the deformity to consist of an outward subluxation of the first phalanx. The bursa over the head of the metatarsal bone has been opened.

Mr. OWEN.

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#### SERIES IX.—AMPUTATIONS.

564. A Syme's amputation-stump fourteen days after operation. Healing by first intention has taken place everywhere save in the track of the drainage-tube.

The patient was an old man who had fallen upon his feet a distance of eight yards. In the limb from which this specimen came there was a compound comminuted fracture of the tarsus and metatarsus, and primary amputation was done. On the other side was a severe compound fracture in the leg. The foot was cold and there was free hæmorrhage, but both tibial arteries were pulsating. The fracture was put up antiseptically. Eight days later amputation was done for gangrene. The patient died five days after the operation. Suppuration was present in the inter-muscular planes though there was no offensive smell at any time.

Mr. PAGE.

565. Conical stump at the level of the tubercle of the tibia. The scar has ulcerated and is adherent to the bone. The condition is the result of sloughing of the flaps.

566. Stump of an amputation through the thigh. The muscles are swollen and infiltrated with leucocytes. The end of the bone is covered with granulations and lies in a cavity.

From a man aged forty-seven. Amputation was first performed below the knee for a chronic ulcer which would not heal. It had existed many years. The stump did badly and amputation through the thigh was done. The wound healed except at the orifice of a small sinus, and the patient left the hospital to return for an attack of erysipelas which passed off. Death was due to uræmia. Large white kidneys were found after death.





567. The lower part of a femur showing the results of acute osteo-myelitis. Part of the bone is whiter than the rest owing to its being necrosed. The periosteum is thickened and a deposit of new bone has begun. In the lower part the medulla has broken down into pus, in the upper part it is dark-coloured and infiltrated with inflammatory products.

Removed thirty days after amputation from a youth of nineteen who died of pyæmia after amputation had been done for tubercle of the knee. Mr. LANE.

568. Sequestrum from a stump; the result of acute osteo-myelitis. At the lower end the necrosis affects the whole thickness of the bone, above, it is partial as the "worm-eaten" surface shows.

569. Portion of a femur removed from a stump six weeks after amputation. There has been some suppuration which has caused exfoliation and osteo-plastic periostitis.

570. Part of a femur removed from a stump ten days after amputation. The exposed medulla is covered with granulations. A thin ring of bone is in process of exfoliation below.

571. Bones from the stump of a Syme's amputation which was done on account of tubercular disease of the ankle. The ends are rounded and expanded and the medullary canal is closed. The disease has recurred in the bones which are carious. Mr. PEPPER.

572. Part of a femur from a stump sixteen years after amputation for injury. The shaft is atrophied and tapering.

573. Portions of the humerus removed from a boy aged ten, on account of the growth of the bone having produced a conical stump. Amputation had been done five years previously.

Mr. OWEN.

574. Bones from a stump. The tibia is slightly, and the fibula extensively affected with tubercular osteitis. The ends of the bone are rounded off.

Removed after death from a patient who died of phthisis. The left leg had been amputated for disease of the ankle-joint and the right for disease of the knee-joint.

Mr. OWEN.

575. Vessels and nerves removed from the stump of a shoulder-amputation. The axillary is reduced to the size of a digital artery, and is obliterated below its last branch. The nerves are bulbous and adhere to the scar.

Mr. PEPPER.

576. Bulbous nerve removed from a stump on account of pain.

Mr. OWEN

577. Stump from a boy aged seventeen, who died of phthisis and amyloid disease. The stump is conical and the scar adherent to the end of the bone. Amputation was done six years before death. The flaps were ample at the operation. The posterior tibial artery is much diminished in size, the nerves are bulbous and adhere to the cicatrix.

SERIES X.—DISEASES OF THE HEART AND  
BLOOD VESSELS.

CONGENITAL DEFECTS.

578. Defective interventricular septum from a child who died of morbus cæruleus. Mr. S. LANE.

579. Heart with a defective interventricular septum, hypertrophied right ventricle, rudimentary pulmonary artery impervious at its origin, and patent foramen ovale. The aperture in the interventricular septum admits the little finger.

From a child aged three months who died after a convulsive attack. There was hardly any cyanosis until just before death. The first sound was replaced by a loud murmur, the second sound was weak. *Path. Trans.*, Vol. viii., p. 107.

Dr. GRAILY HEWITT.

580. Heart with one ventricle and one auricle. There is only a vestige of an interauricular septum and only one auriculo-ventricular orifice which corresponds to the mitral. The ductus arteriosus was present. The interventricular septum is represented by a fleshy column which passes from the apex to the base of the heart and which is free in all its circumference.

From a child aged six weeks. There was no cyanosis. There was a loud systolic murmur. The patient suffered from attacks of sickness and dyspnæa; in one of these it died. The heart is hypertrophied. The lungs were normal. *Path. Trans.*, Vol. xcvi.

Dr. SIEVEKING.

581. Transposition of the aorta and pulmonary artery. The right ventricle is much thicker than the left and gives off the aorta which has the usual branches. The pulmonary artery is dilated and the ductus arteriosus patent. The heart is hypertrophied. The right auricle was excessively dilated and hypertrophied. The foramen ovale presents a cribriform opening. The coronary arteries join the aorta.

From a child who lived fourteen weeks, and was deeply cyanosed from birth. There was a loud systolic murmur. *Path. Trans.*, Vol. xxiii., p. 80.

Dr. SHEPHERD.

582. Part of the heart and aorta. The anterior and left lateral valves are increased in size whilst the remaining valve is abortive. The flaps contain calcareous plates. Dr. SIMON.

583. Pulmonary artery with four valves, of which the two anterior are distinctly smaller than the others. Mr. H. A. KIDD.

584. Aorta with only two valves. One is divided by the knife, the other presents two corpora arantii. Probably congenital.

585. Abnormal chorda tendinea stretching between the columnæ carneæ of the left ventricle, a second band joins it to the anterior flap of the mitral.

The presence of these bands is accounted for by the development of the valves from solid processes of the ventricle wall.







## 586. Widely patent foramen ovale.

From a lad aged fourteen who was admitted severely ill with a dusky face, a pulse of 134, diffused impulse, increased dulness, and apex in the fifth space outside the nipple line. Loud systolic murmur at the apex, less distinct nearer the sternum, and distinct again at the ensiform cartilage. All sounds muffled at the right second and third spaces. Sharp pulmonary second. Systolic thrill at apex. Death seventeen days later. After death the heart was found to be very large compressing the lungs. It weighed twenty ounces. The pericardium was everywhere adherent. Right auricle and ventricle greatly dilated, valves normal. The tricuspid orifice was not dilated in proportion to the right cavities. *P. M. Reports*, xiv. 161.

Dr. BROADBENT.

## 587. Patent foramen ovale in a heart, otherwise normal.

From a child aged four. There was a loud systolic murmur and slight cyanosis. Death was due to tubercle of the lungs. *Path. Trans.*, vol. viii. p. 142.

Dr. MARKHAM.

## 588. A heart showing a patent foramen ovale and mitral stenosis.

Mr. S. LANE.

## 589. Fœtal heart with a pedunculated cyst at the apex.

NORTH COLLECTION.

## 590. The sternum costal cartilages, &amp;c., and the heart of an infant. The part of the sternum below the third pair of cartilages is forked from failure of coalescence of its lateral halves. The ventricular portion of the heart projects in the cleft. The pericardium is adherent on its anterior aspect. The integuments were normal.

The child was four months old when it died of broncho-pneumonia.

Dr. PHILLIPS.

## WOUNDS AND SPONTANEOUS RUPTURE OF THE HEART.

## 591. Bullet-wound of the heart traversing the left ventricle. The difference in size between the apertures of entry and exit is well marked. Suicidal.

Dr. MAGUIRE.

## 592. Punctured wound of the chest-wall, left lung, and heart. The weapon passed between the fifth and sixth ribs. The inner orifice of the wound in the left ventricle was concealed by the anterior flap of the mitral valve. The left lung was collapsed and the left pleural cavity contained three pints of fluid blood.

From a boy of thirteen who was wounded by a dinner knife thrown at him by his brother. The boy withdrew the knife himself and profuse hæmorrhage followed. He lived thirty-two hours and a half after the injury. The wound was plugged and venæsection was performed for the relief of dyspnœa. *P. M. Reports*, vol. ii. p. 207.

Mr. S. LANE.

## 593. Spontaneous rupture of the left ventricle. The heart-substance is thin and friable and in an advanced state of fatty degeneration. The branches of the coronary artery are atheromatous.

From an unmarried woman aged fifty who after some excitement and unusually large meals was seized with great pain in the epigastrium, and vomiting. Seven hours later the pain increased and the patient died suddenly. The pericardium was full of clot.

Mr. C. D'ALTON.

594. Part of the left ventricle, showing a spontaneous rupture about an inch long. The heart-wall has given way close to the septum. The coronary arteries are atheromatous and calcified. The heart muscle is in a state of advanced fatty degeneration.

*Path. Trans.*, 1852.

#### AFFECTIONS OF THE PERICARDIUM.

595. Acute pericarditis, with copious effusion.

From a man of twenty-eight who had enlarged heart-dulness, dyspnœa, rigors, and hæmoptysis, and who died of syncope. He had had a similar attack six months before. One lung was solid, the other congested. There was empyæma on both sides, emboli in the kidneys, and an abscess in the spleen. *P.M. Reports*, xii. 195.

596. Acute pericarditis from Bright's disease.

Dr. SIBSON.

597. Pericardium covered with organised lymph. In the recent state the sac was distended with fluid.

From a woman aged forty-four, who felt pain over the heart five weeks before admission. The impulse was diffuse, and the pulse almost imperceptible. No history of rheumatism.

Dr. ALDERSON.

598. Pericardium distended and thickened, heart covered with shaggy lymph. The valves are normal. In the recent state the lymph covering the heart was of a bright red colour. The pericardium contained three pints of fluid.

From a man aged thirty-six, whose chief symptoms were pain and orthopnœa. *P.M. Reports*, vi. 727.

Dr. ALDERSON.

599. Heart and pericardium. The latter is covered with thick false membrane. The apex of the heart is firmly adherent to the pericardium. There was a pint of pus in the cavity.

From a fat man of sixty-two, who had also pleural effusion, fatty liver and kidneys. *P.M. Reports*, iv. 498.

Dr. SIBSON.

600. Heart covered with reticulated lymph, and presenting recent pericardial adhesions. There are vegetations on the mitral valve causing obstruction which has given rise to dilatation of the left auricle.

From a woman aged fifty-four.

Dr. TYLER SMITH.

601. Hypertrophied heart, with a thick deposit of lymph from pericarditis.

From a man aged thirty-three, who also had pneumonia. *P.M. Reports*, xi. 135.

Dr. SIEVEKING.

602. Universally adherent pericardium. The heart is hypertrophied. The valves are normal. The pleura and lung are adherent to the pericardium at one part.

Dr. BROADBENT.

603. Adherent pericardium.

From an Arab who died of phthisis aged twenty-seven,

604. Cancerous nodule beneath the pericardium.

From a man who died of epithelioma of the larynx.

Dr. CHAMBERS.





## DEGENERATION.

605. Fatty degeneration of the heart. In the recent state the organ was flabby and striated with yellowish lines. The fibres of all the cavities showed under the microscope rows of fat drops.

From a man aged thirty-seven, who died of syncope at the beginning of chloroform inhalation. A vein in the neck was opened and artificial respiration performed to no purpose. The kidneys and liver were also fatty. *B. M. J.*, 1890. Mr. PAGE.

## ENDOCARDITIS.

606. A portion of the heart from a case of ulcerative endocarditis. There is old standing puckering of the aortic valves as well as recent ulceration of these and of the mitral valves. The affected parts were joined together by fibrin, part of which was calcerous, and hence of some standing.

From a man aged twenty-seven. The state of the aortic and mitral valves and the thickening of the left ventricle show that this was not the first attack of endocarditis. There was a large embolus causing suppuration of the spleen (No. 1,040). The attack of ulcerative endocarditis lasted three months. *P. M. Reports*, xvi. 29.

Dr. BROADBENT.

607. Heart and aorta, showing ulcerative endocarditis and aortitis. The mitral valve presents small ulcerations. The aorta at the junction of the ascending and transverse parts shows ulceration and aneurismal bulging. There is some fibrin deposited.

Streptococci were found in great abundance in scrapings of the affected parts. The pericardium contained serum mixed with lymph. There were emboli in the spleen.

Dr. MAGUIRE.

608. Heart showing changes due to endocarditis of some standing. The vegetations on the mitral and aortic valves are large. There are smaller ones scattered over the lining membrane of the left ventricle.

609. Vegetations on the aortic and mitral valves. Through the cluster at the base of the aortic flap of the mitral a perforation passes into the left auricle.

610. Heart showing the effects of acute endocarditis on the aortic and mitral valves.

611. Heart with vegetations becoming calcareous on the right flap of the mitral valve and, on the interventricular septum, an ulcer corresponding with the mass of vegetations on the mitral valve.

From a girl aged seventeen who died from heart-disease four years after the first attack of rheumatism. *P. M. Reports*, vii. No. 1,125.

Dr. ALDERSON.

612. Ulceration and aneurismal yielding of the aortic valve, and aneurism of the arch of the aorta, which is atheromatous.

613. Disease of the aortic and mitral valves. From a woman aged twenty-six.

614. The root of the aorta opened showing a recent laceration at the left side of the left posterior flap. The division between anterior and right posterior flaps is imperfect, either congenitally or from an old rupture. The valves and aorta are atheromatous.

From a woman who during parturition a month before death felt a pain in the precordial region. From that time to her death she had dyspnœa and signs of aortic regurgitation. She died of syncope.

Dr. LEES.

615. Thickening of the mitral valve. Both the mitral and tricuspid, as well as the aortic valves, were insufficient.

From a woman aged twenty-seven, who had rheumatic fever for three years and a half. Three weeks before death she had an attack of paralysis, affecting chiefly the right arm. It was followed by rigidity and accompanied with loss of consciousness, and followed by aphasia. Emboli were found in the left middle cerebral artery, and at the division of the right internal carotid. The former had caused softening, the latter some meningitis.—*P. M. Reports*, xi. 185.

Dr. SIBSON.

616. Vegetations on the mitral valve, and on the wall of the left auricle.

617. Aortic stenosis. Two of the flaps are coherent at their edges.

618. Disease of the aortic and mitral valves. There are calcareous nodules in the former. A partly calcified mass extends from one of the aortic flaps to the anterior flap of the mitral.

From a woman aged fifty-three. The symptoms were chiefly those of mitral incompetence.—*P. M. Records*, i. 33.

Dr. ALDERSON.

619. Heart and part of the aorta. The latter is dilated and atheromatous. The aortic valves are degenerated, and the left ventricle is dilated and hypertrophied.

From a guardsman aged forty, who had a basal diastolic murmur, but who was otherwise healthy. He died suddenly after making a violent effort.

Brigade-Surgeon A. B. R. MYERS.

620. Aortic valves with lesions, due to old and recent endocarditis.

From a man aged thirty, who had mitral systolic and aortic diastolic murmurs.

621. Extensive stenosis of the aortic valves, which are converted into a mass of calcareous matter. Rigid and fused together, they leave only a narrow slit for the passage of blood.

622. Heart, with masses of granulations and fibrin on the aortic valve, and in the wall of the ventricle an abscess cavity which contained puriform matter.

From a man aged twenty-three, who died of uræmia, having large white kidneys and pneumonia.

623. Disease of the aortic valve, leading to stenosis, and extending to the aortic flap of the mitral. (Compare No. 618).

624. A heart, showing the results of chronic disease of the aortic and mitral valves.

Mr. BAKER.

625. Calcareous deposit (atheroma) in the aortic valves and the root of the aorta.

Mr. S. LANE.







626. Atheroma of the aortic and mitral valves. Mr. S. LANE.
627. Aortic valves with calcareous deposit and perforation. Mr. S. LANE.
628. Atheroma of the aortic valves. Mr. S. LANE.
629. A section through the heart, showing thickening, calcification, and stenosis of the mitral valve.  
From a man of forty, who had cirrhosis of the liver and granular kidney. Dr. ALDERSON.
630. A heart showing an early stage of mitral stenosis.
631. Thickening of the flaps of the mitral valve, with thickening and shortening of the chordæ tendineæ. The flaps cohere at their edges, leaving an aperture which admits two finger tips. The aortic valves are also diseased.
632. Heart with diseased mitral valve. The pericardium is adherent, the adhesions in parts being drawn out into long bands.  
The chordæ tendineæ are thickened and partly calcified. In one of them a considerable thickening attaches the apex of the papillary muscle to the wall of the ventricle. All the cavities are dilated, especially the left auricle which would contain a small fist.  
From a man aged forty-two, whose chief symptoms were palpitation and dyspnoea. There was a loud systolic murmur and an intermittent pulse. *P.M. Reports*, vi. 840. Dr. CHAMBERS.
633. A heart showing great thickening of the posterior flap of the mitral valve which is partly calcified.
634. Heart showing mitral and tricuspid stenosis.
635. Mitral valve and neighbouring parts, showing stenosis of the mitral orifice.
636. Heart with left ventricle dilated from mitral incompetence.  
From a boy aged twelve who had rheumatic fever three years before death. The heart could be felt one inch from the xiphoid cartilage. Dr. SIBSON.
637. Vegetations along the edge of the mitral valve. Dr. SIBSON.
638. Heart with the left ventricle hypertrophied from incompetence of the aortic valves. The aorta is dilated and hypertrophied.
639. Part of a heart showing vegetations on the under surface of the aortic flap of the mitral valve, on the opposed part of the wall of the ventricle, and on the aortic valves.

#### HYPERTROPHY, DILATATION, AND ANEURISMS OF THE HEART.

640. Section through a hypertrophied left ventricle from a case of contracted granular kidney.
641. Heart with mitral incompetence due to dilatation of the mitral orifice and pouching of the mitral valve. The left ventricle is dilated and hypertrophied.  
From a boy aged fifteen.—*P. M. Reports*, iii. 333. Dr. SIBSON.

642. Heart with extreme dilatation of the auricles, which are membranous from thinning. The mitral valve is greatly, and the aortic valve slightly stenosed. The left ventricle is hypertrophied.

From a patient aged sixty-nine. The aortic valve was competent.

643. A heart showing dilatation of the right auricle with thickening of the tricuspid valve.

644. A heart showing mitral and tricuspid obstruction with dilatation and hypertrophy of the auricles. The circumference of the mitral valve is two inches, and that of the tricuspid two inches and a half.

From a boy aged twelve, who had rheumatic fever three years before death, which was due to pneumonia.—*P. M. Reports*, xi. 191. Dr. SIBSON.

645. A heart showing an aneurism at the apex of the left ventricle. The sac is a diaphanous membrane devoid of muscular tissue. The pericardium is adherent to the sac. The cavity would lodge half a Maltese orange. Near the middle of the left border of the heart the pericardium is again adherent, and at this part the heart-wall and columnæ carnæ are diminished in thickness. The right ventricle is encroached upon by the aneurism. The mitral valves are thickened. In the recent state the muscular substance appeared to be much congested.

From a woman aged fifty-three, who died suddenly while riding in a cart. She had been subject to fainting-fits and was known to have heart-disease. Just before death she complained of shortness of breath and of tightness across the chest.—*P. M. Reports*, vi. 838. Dr. BROADEENT.

646. Aneurism of the right ventricle. The base of the infundibulum is bulged out to the left. Here the heart-wall is devoid of muscular tissue, and diaphanous. In the recent state, when the chest-wall had been removed, the aneurism lay beneath the third left inter-space, and pushed the lung out of sight. The right ventricle was full of recent clot. The tricuspid orifice was large, but all the valves were healthy.

From a woman aged thirty-five, who died from erysipelas, due to puncture of the legs for oedema. There was forcible pulsation in the third left inter-space, irregular and rapid pulse, a widely-diffused impulse, a loud systolic murmur audible over the pulmonary area, and loudest at the apex. Three sounds were heard, "galloping" in rhythm. The case simulated mitral stenosis, with dilated left auricle.—*P. M. Reports*, xv. 136. Dr. HANDFIELD-JONES.

647. A small aneurism immediately above the apex of the left ventricle, encroaching on the inter-ventricular septum. The aneurism is as large as half a walnut, and its membranous wall is smooth, and in parts calcified.

From a very fat woman, who died during an operation for strangulated umbilic hernia.—*P. M. Reports*, xvi. 1881. Mr. SPENCER SMIT

648. Aneurismal bulging of the aortic valves. The largest has been accidentally cut.

From a woman aged sixty-four, who died with granular kidneys, congestion of the lungs, and meningitis. There was a recent infarct in the spleen. The urine was scanty, and contained traces of albumen.—*P. M. Reports*, ix. 193. Dr. HANDFIELD-JONES.





## THROMBOSIS OF THE HEART.

649. Ante-mortem clot, filling all the cavities of the heart except the left auricle.

650. The left ventricle, containing ante-mortem clot. In the recent state it was firmly adherent, and softened in the centre.

From a man aged seventy-six, who was comatose for a week before he died from retention of urine and kidney disease. (*See No. 662*).—*P. M. Reports*, xi. 9.

Mr. JAMES LANE.

651. Heart, with ante-mortem clot in both auricles, continuous through a cribriform foramen ovale. The Eustachian valve is reticulated and larger than usual.

From a woman aged thirty-four, who died of acute arthritis of the knee, following erysipelas.—*P. M. Reports*, v. 769.

Dr. CHAMBERS & Mr. COULSON.

652. Ante-mortem clot in the left auricle.

Dr. MARKHAM.

653. Thrombosis of the right auricle and pulmonary artery.

From a child aged eighteen months who was found dead in bed whilst being treated for multiple nævi by cauterisation. Catarrhal pneumonia was found on the right side. *P. M. Reports*, 1882, No. 12.

Mr. OWEN.

654. A heart containing cream-coloured clots in all four cavities.

From a case of leucocythæmia.

## OTHER AFFECTIONS OF THE HEART.

655. Pyæmic abscess near the base of the heart and numerous petechiæ beneath the pericardium.

From a case of acute osteomyelitis.

656. Heart containing nodules of new growth which the microscope shows to be mixed round and spindle-celled sarcoma. No new growth was found in any other part of the body.

From a man who fell into a canal and died soon after. *P. M. Reports* xiii.

Mr. SIEVERING.

657. Heart containing nodules of cancer secondary to cancer of the head of the pancreas.

From a man aged thirty-nine who died of asthenia after an illness of five months.

Dr. HANDFIELD-JONES.

## AFFECTIONS OF THE AORTA AND OTHER ARTERIES OF THE CHEST AND ABDOMEN.

658. Early chronic endarteritis (atheroma) of the aorta: aneurismal bulgings are seen in several places.

From a man aged thirty-four who died of rupture of a large abdominal aneurism.

Dr. ALDERSON.

659. Part of the aorta with calcified plates affecting nearly the whole thickness of the wall of the artery. The result of chronic endarteritis.

Mr. S. LANE.

660. Aorta dried showing calcareous plates due to chronic endarteritis. MR. S. LANE.
661. Aorta and iliac arteries showing an extreme degree of chronic endarteritis with atheromatous ulcers.
662. Aorta with syphilitic endarteritis in the form of gummata.  
From a man aged forty-seven who died of pericarditis and dilation of the heart and who had gummata of the liver. *P. M. Reports*, 1878, No. 17. DR. HANDFIELD-JONES.
663. Part of the thoracic aorta showing adherent coagula.  
From a man who was comatose for a week before death. *See* No. 651.
664. Aneurism of the left coronary artery which for two inches is dilated into a calcified tube having an average diameter of three quarters of an inch. The aortic orifice of the artery admits the little finger. The dilatation ceases at the bifurcation of the artery. The branches of the artery are of normal size. The right sinus of valsalva is pouched. The aorta is atheromatous. The aneurism contained no clot. It encroaches on the auricle but does not affect the mitral orifice.  
Case of Hy. Richards, admitted October 20th, 1887. DR. LEES.
665. Dissecting aneurism of the aorta. Part of the outer coat has been cut away to show the upper rent in the inner layers of the arterial wall. The separation of the coats extended along the carotids, and downwards along the common iliacs. The aneurism ruptured externally into the extra-pericardial tissues. The left ventricle is hypertrophied. DR. SIBSON.
666. Aneurism of the aorta. The neck of the sac is below the orifice of the left coronary artery, in which red glass rods are placed. The artery lies on the surface of the sac.  
From a man aged thirty, who died of syncope. The clot which filled the aneurism was found to have extended into the aorta, almost closing the aortic orifice.
667. Aneurism as large as a foetal head, involving the whole of the ascending and transverse parts of the arch. The heart is displaced downwards and to the left. The right lung is adherent to the sac, which compresses the left bronchus and the right pulmonary vessels.
668. Commencing aneurism immediately above the aortic valves.  
From a man aged twenty-five, who died of syncope. MARSH.
669. Aneurism of the aorta ruptured into the œsophagus. DR. SIBSON.
670. Aneurism of the aorta immediately beyond the pericardium. The right lung adheres to the sac, which has ruptured into the lung.  
From a man aged forty, who died suddenly with profuse hæmoptysis. MR. BULLOCK.
671. Saccular aneurism of the transverse part of the arch of the aorta. It has ruptured into the trachea. MR. S. LANE.







672. Aneurism of the third part of the arch of the aorta, opening into the right bronchus.

673. Aneurism of the first part of the arch of the aorta. The wall of the artery is extensively calcified. The sac is as large as a walnut, and though it communicates by a large aperture with the main artery, it is filled with clot.

From a man aged sixty-six, who died of chronic bronchitis. There was pulsation in the second and third right inter-spaces during inspiration.—*P. M. Reports*, vii. 979.

Dr. ALDERSON.

674. Heart and aorta with three small aneurisms coming off, one above the left, the others above the right sinus of Valsalva.

675. Aneurisms of the ascending and transverse parts of the aortic arch.

676. Aneurism of the first part of the aortic arch opening into the pulmonary artery.

From a man aged fifty-two, who died suddenly. A year before death the patient was seized with dyspnœa and sudden pain in the epigastrium. Some months later he vomited blood. He had complained chiefly of cough, shortness of breath, and pain in the chest. A pulmonary murmur was present with aortic and tricuspid regurgitant murmurs.—*P. M. Reports*, xiv. No. 18.

Dr. BROADBENT.

677. Aorta, showing general dilatation with one large and two small aneurisms. The larger aneurism leads out of the upper part of the transverse arch by an aperture one inch in length. It lies in front of the trachea, separating the innominate and left carotid arteries.

From a man aged twenty-eight.

Dr. ALDERSON.

678. Aneurism of the ascending aorta springing from near its junction with the transverse portion, and extending backward to the right. It is of the size of a large fist. The innominate and left carotid arteries rise from the upper part of the tumour. The vena cava was closed by pressure of the aneurism.

From a man aged sixty, who had good health till he was taken ill on the day he was admitted. He had a swollen and cyanosed face, difficult breathing, and husky voice. The swelling of the face and neck increased rapidly and extended to the arms; The face became almost black. There was chemosis. Bleeding to sixteen ounces relieved him so that he was able to walk about. He died suddenly on the seventh day.—*P. M. Reports*, vi., No. 880.

Dr. SIBSON.

679. Aneurism of the arch of the aorta between the first and second parts. The tumour is adherent to the sternum and projects above the manubrium and the clavicle and into the first right costal interspace, compressing the trachea, innominate artery, and vena cava.

680. Dilation of the ascending aorta and disease of its coats. The aortic valves are incompetent, the left ventricle is dilated and hypertrophied.

From a man aged forty-five. There was a vibratory thrill at the right second intercostal space and a musical diastolic murmur over the whole of the chest. Death was due to congestive pneumonia.—*P. M. Reports*, vol. ii., No. 17.

Dr. SIBSON.

681. Aneurism of the arch of the aorta involving the concave aspect of the entire arch and extending downwards. It is nearly filled with laminated clot. The ribs near the cartilages are eroded. The neighbouring parts are compressed.
682. Aneurism springing from the aorta at the end of the arch. It compresses the œsophagus and is adherent to the vertebræ from the fourth to the eighth.
683. Large aneurism of the third part of the aortic arch and the beginning of the thoracic aorta. It fills the upper half of the right side of the thorax and greatly compresses the right lung.

684. Aneurism of the third part of the arch. The sac is open behind where it adhered to the third, fourth, and fifth dorsal vertebræ. The aneurism pressed directly on the left recurrent nerve.

From a man aged forty-three, who was sent to the hospital for chronic laryngitis, but this was not present, the severe paroxysmal dyspnœa being due to pressure on the lower end of the trachea and the left bronchus, and the altered voice to paralysis of the left vocal cord owing to pressure on the left recurrent nerve. Tracheotomy was performed. The patient died of syncope. *P.M. Reports*, vol. xv. 104.

Dr. BROADBENT.

685. Saccular aneurism of the arch of the aorta between the second and third parts. The aneurism is due to the yielding of the posterior wall of the artery. The left recurrent nerve is stretched over the back of the sac. The tumour bulges into the trachea with which it communicates by two small openings which were closed by a layer of fibrin  $\frac{1}{16}$  in. thick.

From a sailor aged forty-eight who had paroxysmal dyspnœa. The left pupil was contracted and although the left recurrent nerve is implicated it is recorded the right vocal cord was paralysed. *P. M. Reports*, December 11th, 1890.

Dr. LEES.

686. A double aneurism of the descending thoracic aorta. The upper sac has ulcerated into the œsophagus.

Mr. S. LANE.

687. Aneurism of the aorta as large as a man's head. Three-fourths of the tumour is above the diaphragm, the remainder projects below the dilated aortic notch and involves the celiac axis. It bulges above the stomach pushing the diaphragm and the small omentum before it. It is occupied by firm clot except posteriorly where a channel remains. The vertebræ are eroded. Sub-peritoneal rupture has occurred on the left side and by slow leakage the retro-peritoneal tissues were filled with blood. About two pints of blood-stained fluid were found in the peritoneum. The whole of the aorta is atheromatous. The heart is in a state of fatty degeneration and both the mitral and tricuspid orifices are dilated.

From a labourer aged forty-six, who left off work owing to shortness of breath and pain four months before he died. He had œdema of the left loin and lower limb, pain, dyspnœa, weak cardiac impulse, mitral and tricuspid systolic murmurs, enlargement of the superficial veins of the left side of the abdomen, pulsation of the veins of the neck, and crepitations over the left lung. A large solid-feeling tumour was present in the left hypochondriac region. Its dulness could not be separated





from that of the liver. Pulsation was present, but there was no thrill or bruit. The liver also pulsated from tricuspid regurgitation. There was diarrhoea and occasional vomiting for the last fortnight. The day before death the patient was pale and pulseless, and his skin yellow. Dr. BROADBENT.

688. Aneurism of the abdominal aorta, opening into the transverse colon. Dr. VINTRAS.

689. Aneurism, situated immediately above the common iliacs.  
From a policeman who died suddenly. The anterior part of the sac is filled with clot, the posterior part, where rupture occurred, is thin and empty. MARSH.

690. Aneurism of the abdominal aorta. The artery is opened from behind. The chief bulging is in front, and is occupied by laminated clot. Below this is a fusiform dilatation, in which clot had begun to be deposited. The root of the aorta and the arteries are extremely atheromatous.

From an old woman, who died of cancer of the oesophagus. The tumour in life had no perceptible eccentric pulsation, and was thought to be a secondary deposit of cancer. See also No. 1147. Dr. SCANES SPICER.

#### AFFECTIONS OF THE ARTERIES OF THE HEAD, NECK, AND LIMBS.

691. Primary calcareous degeneration of an artery. The calcified substance has an annular arrangement from their first affecting the muscle fibres of the middle cord. Mr. S. LANE.

692. Thrombosis of the external iliac and femoral arteries, and of the common and external iliac and femoral veins.

From a woman who died after amputation of the leg for impending gangrene. The first symptom was sudden pain. There was a recent infarct in the liver. A case of thrombosis due to embolism.

693. Lower part of the popliteal artery, showing rupture of the inner and middle coats. They have retracted for one inch and curled up. The artery is thrombosed above and below the lesion.

From a man over whose knee passed the wheel of a cart weighing a ton. On admission the tibials pulsated, but soon the pulsation ceased and gangrene setting in amputation was performed. See No. 175. Mr. OWEN.

694. Part of a common carotid artery tied during life. The linear division of the inner and middle coats is well seen. A dark line of congestion is seen on each side of the track of the ligature. Mr. PEPPER.

695. The external iliac and superficial femoral arteries both ligatured. On the distal side of the ligature on the superficial femoral is an aperture through which secondary hæmorrhage took place, and on the proximal side a clot with a broad base and taper extremity extends into the common femoral. The ligatures are of catgut. The upper one is partly embedded in lymph.

From a case of ruptured popliteal aneurism. The superficial femoral was tied. Secondary hæmorrhage occurred. The external iliac was tied. Gangrene, amputation, and death followed. Mr. LANE.

696. Femoral vessels removed from a stump three weeks after amputation. The ligature had separated and the vessels were firmly closed.

Mr. COULSON.

697. Femoral vessels with ligatures attached. From the stump of a thigh amputated fourteen days before death for cellulitis of the leg. The stump became sloughy and the patient died. The coagula are decolorised and adherent below, tapering above.

Mr. URE.

698. Femoral artery ligatured ten days before death for aneurism of the posterior tibial artery, No. 709. On the proximal side of the ligature are the remains of a clot which was about half-an-inch in length, adherent and partly decolorised.

Below the ligature was a thin layer of organised lymph. Mr. HAYNES WALTON.

699. Part of the femoral artery and vein seven days after ligature of the artery. The ligature is partly buried in plastic effusion. Above the ligature is the lower part of the coagulum. The remains of decolorised and adherent coagula are seen in both artery and vein.

Mr. S. LANE.

700. Popliteal artery four days after ligature. At the closed end is a partly decolorised coagulum nearly an inch long. Above it, along the dependent side of the vessel, is a narrow white fibrinous clot. From an amputation-stump.

Mr. HAYNES WALTON.

### SURGICAL ANEURISMS.

701. Common and internal carotid arteries. The latter presents two aneurisms. The upper one, from which the ophthalmic artery springs, was in the cavernous sinus, the lower one, just outside the skull. The ophthalmic artery and its branches are greatly dilated constituting a cirroid aneurism.

From a man in whom symptoms appeared soon after he received a kick on the head from a horse. There was a rough systolic bruit over the frontal sinus, proptosis and pulsation. The case is an instance of aneurisms, one of them cirroid, due directly to injury. The common carotid was tied and shows the firmly adherent clot above and below the ligature. Pulsation returned in the orbit a few hours after operation. The patient did well for three weeks when he developed a high temperature and died. Congestion without softening of the brain was found.

Mr. HAYNES WALTON.

702. Femoral and popliteal vessels with a popliteal aneurism laid open. The superficial femoral artery has been tied and the specimen shows the linear division of the inner coats. There is a second vein lying close to the artery at the seat of ligature. This vein has been opened. There was a clot extending from the ligature to the deep femoral artery and some suppuration about the ligature.

From a man aged forty-six who died suddenly a few days after the operation. Embolism of the basilar artery was found.

Mr. NORTON.









703. A thigh dissected, showing a popliteal aneurism, the superficial femoral artery occluded by an old ligature, and a recent ligature on the external iliac, and the collateral circulation. The aneurism has formed immediately below the opening in the adductor magnus. It is occupied at its anterior part by recent laminated clot, and at its posterior part by firm dark clot of horny consistence. The superficial femoral is reduced to a fibrous cord for three-quarters of an inch at its middle. This is the usual result of ligature of an artery in its continuity, though a more extensive obliteration does sometimes occur. The second constriction on the superficial femoral was made in injecting the specimen. On the right external iliac is a catgut ligature partially covered with lymph. The collateral circulation has been established as follows:

I. A branch of the external circumflex accompanies a branch of the anterior crural nerve to the superficial femoral below the portion obliterated by the first operation.

II. Muscular branches of the superficial femoral below the ligature communicate with branches of the perforating arteries in the hamstring muscles.

III. A large branch of the second perforating artery runs in the substance of the great sciatic nerve and joins a branch of the superficial femoral below the ligature.

From a timber porter aged forty-one. He had aortic regurgitation. He denied having syphilis. He was first admitted a fortnight after he noticed the aneurism. Digital compression was tried for two hours with no effect. Then the superficial femoral was tied with chromic gut. The wound healed in three weeks and soon afterwards the patient was discharged with no return of pulsation. In spite of warning the patient returned to arduous labour, and two years and eight months after the first operation the external iliac was tied for return of pulsation immediately above the old aneurism. The case ended fatally in six days from pyæmia and erysipelas.

MR. PEPPER.

704. Superficial femoral and popliteal arteries and popliteal aneurism. The femoral has been tied about two inches below the profunda. From this point to within an inch of the aneurism the artery is obliterated. Above the ligature is a firmly organised clot reaching as far as the origin of the profunda. The popliteal artery below the aneurism is also occupied by an organised clot. The walls of the aneurism and part of the laminated clot which is shown removed are calcified. There is no history of the case. MR. S. LANE.

705. Femoral and popliteal vessels. Below is a cured popliteal aneurism reduced to a small fibrous mass. The femoral artery is obliterated for about an inch where the ligature was successfully applied three years before death. The ligature was preserved and is attached to the specimen. Below the obliteration the superficial femoral artery is of its normal size and its branches are enlarged for the collateral circulation. Below the last branch the artery is again obliterated by the extension of clot from the aneurism.

MR. S. LANE.

706. Ruptured popliteal aneurism. The sac is formed of dense circumjacent structures. The popliteal vessels and nerve are stretched over the tumour, which occupied the posterior, internal, and anterior aspects of the thigh.

From a man aged forty-five. A month before admission both pulsation and bruit were present. First pulsation, then bruit disappeared. There was no gangrene. The history of the case decided it to be aneurism, not growth. Amputation was successful.

Mr. LANE.

707. Popliteal aneurism. Amputation was performed for progressing gangrene, which came on after consolidation had been obtained by Esmarch's bandage.

Mr. OWEN.

708. Popliteal space, dissected to show a saccular popliteal aneurism arising from the front of the artery, and pressing on the posterior surface of the femur, and on the posterior ligament of the knee. The affection evidently began as a fusiform dilatation, assuming later the saccular form.

From a middle-aged man. The superficial femoral was tied in Scarpa's triangle. Secondary hæmorrhage took place a month later, when the wound had practically healed. Amputation through the trochanters was done. After death aneurisms were found on the right common femoral and the right popliteal. The aorta was dilated.

Mr. NORTON.

709. Aneurism of the posterior tibial artery. The posterior tibial nerve is stretched over the tumour. The cavity is wholly occupied by clot. A piece of glass is passed into the commencement of the anterior tibial artery.

From a man aged twenty-nine. Compression was tried for two months without success. Then the superficial femoral was tied (No. 698). Ten days after the operation the patient died suddenly from syncope caused by disease of the aortic valves.—

*Path. Trans.*, vol. v. p. 3.

Mr. HAYNES WALTON.

710. Popliteal aneurism, which had ruptured. The extravasation was limited to the small cavity in which the glass rod is placed. The popliteal artery and its branches, and the popliteal vein are greatly thickened. Above, the aneurism the artery is occupied by clot. Lower down on the artery is a second aneurism, which was probably caused by softening of the artery wall about a portion of clot which had separated from the larger aneurism.

From a middle-aged man who had syphilis. The superficial femoral artery was tied and amputation was done for gangrene, which followed. Before the patient left the hospital an aneurism developed in the other popliteal space, and the superficial femoral was successfully tied.

Mr. PAGE.

#### AFFECTIONS OF VEINS.

711. Thrombosis of the right iliac vein due to pressure of enlarged glands.

Dr. TYLER SMITH.

712. Left iliac veins and part of the inferior vena cava. A coat of lymph covers the inner surface of the former and the left side of the vena cava.

From a woman aged thirty-three, who died of pelvic cellulitis and pyæmia after parturition.

Dr. CHAMBERS.





713. Thrombosis of the femoral vein, the clot is becoming organised.

From a woman aged thirty-three, who died of septicæmia due to a sloughing bubo.

714. Varix of the internal saphena vein. The large spherical dilatation lay on the inner side of the knee and was filled with liquid blood. The narrower part led upward from this and was thrombosed.

Removed from a middle-aged woman.

Mr. OWEN.

715. A nævus removed from the parotid region. The dilated veins contain phleboliths, which adhere to the walls of the cavities in which they lie.

From a patient aged forty-four, who had a nævus occupying the whole of the side of the neck. It caused death by suffocation. There were also nævi of the viscera.—*Path. Trans.* xi. 267.

Mr. GASCOYEN.

## SERIES XI.—AFFECTIONS OF THE LYMPHATIC VESSELS AND LYMPHATIC GLANDS.

716. Enlarged cervical lymphatic glands surrounding the common carotid artery and the internal jugular vein.

From a patient who died of lymphademonia.

## SERIES XII.—AFFECTIONS OF THE BRAIN, SPINAL CORD AND NERVES.

### CONGENITAL CONDITIONS (FOR ENCEPHALOCELE AND SPINA BIFIDA *see* SERIES IX).

717. Brain showing absence of the olfactory bulbs.

From a girl who died in St. George's Hospital. The sense of smell had been absent from birth.

718. Portion of the brain of an idiot. The optic tracts are in a rudimentary state. The optic nerves were small. The corpora quadrigemina and the geniculate bodies appear to be normal.

Mr. LANE.

### TRAUMATIC HÆMORRHAGE AND INFLAMMATION.

719. A clot on the outer surface of the dura mater corresponding to the left parietal bone.

From a man aged thirty-three who had a fracture extending from the parietal eminence, through the squamous bone and base of the zygoma into the petrous bone and through the vidian and carotid canals. The anterior branches of the middle meningeal artery were divided, *see* No. 99. There was discharge of blood from the left ear. The patient was unconscious for a time but soon rallied. He lived eight days and then died comatose.

Mr. LANE.

720. Clot on the outer surface of the dura mater from laceration of the left lateral sinus, caused by a fracture which commenced at the posterior inferior angle of the parietal bone and crossed the occipital bone to the jugular fossa. The clot compressed the posterior lobe of the brain and the cerebellum on the left side.

The patient had fallen from a scaffold. He walked to the hospital and talked freely. The symptoms of compression came on rapidly and he died comatose. The case is important since it has been stated that blood effused from an injured sinus is at too low pressure to cause fatal compression.

721. Brain showing laceration of the left temporo sphenoidal lobe extensive hæmorrhage from the pia mater. There is a slight contusion of the right parietal lobe.

From a man aged fifty-six who fell on the right side of the head. He was but slightly stunned, walked to the hospital and became comatose three hours afterwards. He vomited before losing consciousness. The left pupil was dilated and there was left facial paralysis. The eyes were turned to the left with slight lateral mystagmus. The right pupil was contracted and the right arm and leg were rigid with slight convulsive movements. On the first evening the pulse was 120 and irregular, respirations 28, tem.  $100^{\circ}\cdot 2$ . The superficial reflexes were delayed. The patient had intervals of consciousness; he was bled 13 oz., which gave relief for a few hours and slowed the pulse to 80. He died six days after admission. Ecchymosis of the right temporal muscle and a fissured fracture limited to the great wing of the sphenoid on the right side were found. *Clinical Notes*, 1890. 714.

Mr. NORTON.

722. Clot on both surfaces of the dura mater in which there is an opening half-an-inch long.

From a man aged thirty-five who had a compound fracture of the left parietal bone from the kick of a horse. He was conscious, but aphasic. He could only partially protrude the tongue. There was twitching of the right side of the face and rigidity of the right arm, and great difficulty in deglutition. Pupils dilated, the left more than the right, pulse 76 irregular, respirations 18. The fragment was elevated and then he spoke saying that he was better. There was oozing of blood from the wound. The patient became comatose. After death the extra-dural clot was found to fill the middle fossa. The arachnoid and brain were lacerated and there was extensive subarachnoid hæmorrhage. *P. M. Reports*, i. 63.

Mr. URE.

723. Frontal lobes of a brain and corresponding dura mater. Two fragments of bone adhere to the latter in an area surrounded by an elevated ring of lymph which marks the limits of a trephine circle. The deep surface of the dura mater and the convolutions are covered with lymph and pus. See No. 101.

From a boy aged fifteen, who had a compound fracture from the kick of a horse. A piece of bone was felt depressed but there were no symptoms. The trephine was applied and a piece of bone elevated. The boy died a week later from meningitis.

Mr. LANE.

724. Hernia cerebri which followed trephining for depressed fracture.

725. Hernia cerebri which is mushroom-shaped. The convex superficial part is separated by a groove from the part by which the protusion was attached. The microscope shows brain matter infiltrated with inflammatory cells.

Removed from a boy aged nine, who began to have a discharge from the ear and to lose his sight eight months before he was admitted. He had a sinus discharging









behind the left ear, in which he was totally deaf; double optic neuritis, from which he was nearly blind, and weakness and some wasting of the right face and limbs. He was trephined over the back part of the left temporo-sphenoidal lobe and over the cerebellum, but no pus was found. A month after the operation the hernia had formed. It increased in size for some months, when it was removed by Pacquelin's cautery. It returned.—*Register*, No. 562, 1890. Mr. PEPPER.

726. Calvarium, showing a trephine-hole. The bone is thickened and sclerosed throughout, and in the middle line to the left of the spot trephined are two small spicules.

From a man aged thirty-eight, who developed Jacksonian epilepsy seven years after a blow on the head, which caused a scalp wound and concussion. As early as six months after the accident the patient noticed abnormal sensations starting in the left foot. His first fit was preceded by the same sensation, and began in the left foot. He was admitted fourteen years after the accident. There was only one tender spot on the scalp. This was situated three-quarters of an inch behind the upper end of the sulcus of Rolando, and the greatest tenderness was in the middle line. He was treated for a month with iodide without success. The operation was unsuccessful, the man dying of exhaustion after a number of fits rapidly succeeding each other.—*Clin. Soc. Trans.*, p. 227, vol. xxii. Dr. LEES & Mr. PAGE.

727. The dura mater from the same case as No. 726, showing the opening made at the operation. There is a thick layer of lymph on the outer, and a thin layer on the inner surface.

Dr. LEES & Mr. PAGE.

728. Extravasation of blood into both lateral ventricles of the brain.

From a woman aged fifty, who was found insensible in the street. The blood in the left ventricle was fluid, that in the right had clotted when the autopsy was made. The blood found its way into the ventricles through a rent leading into the right lenticular nucleus. Contracted granular kidneys were also found.—*P. M. Reports*, v. 636. Dr. SIBSON.

729. Extensive extravasation of blood into the left cerebral hemisphere. It has destroyed the lenticular nucleus and the internal capsule, and burst into and filled the ventricles.

From a man aged forty-five, who fell down and was brought in unconscious with paralysis of the right arm and leg. The heart was hypertrophied, and the kidneys granular. Mr. COULSON.

730. Hæmorrhage into the back part of the right temporo-sphenoidal lobe. The surface of the brain was unaffected. As the brain was being taken out clot burst through the cortex at the convexity of a convolution joining the middle tempo-sphenoidal to the angular gyrus. The clot-filled cavity is as large as a walnut and does not communicate with the ventricle.

From a woman aged forty-two, who had albuminuria and a high tension pulse. She was admitted in a semi-conscious state with sensory and motor paralysis of the left arm, slight left ptosis and repeated spasmodic twitchings of the left side of the face. Absolute coma with stertor followed, and on the sixth day death.—*Clinical Notes*, Jan. 21, 1891. No. 121. Dr. BROADBENT.

731. Extravasation of blood into the right optic thalamus. The clot is limited by a distinct wall of fibrin. In the recent state it was very soft. There was some clot in the left ventricle. The arteries were atheromatous.

From a woman aged fifty-four who had a fit two months before death.

Dr. CHAMBERS.

732. A clot as big as a pea in the left side of the hinder part of the pons varolii and midway between the floor of the fourth ventricle and the ventral surface of the pons. Other minute hæmorrhages were present about the superficial origin of the seventh nerve and in the middle peduncle of the cerebellum. The blood was semi-fluid and for the most part flowed away.

From a man aged seventy-six who fell down apparently but not really insensible. When admitted he was in a state of stupor with complete rigidity of the right arm, partial paralysis of the right leg, and of the left side of the face. In four hours motor power returned to all these parts, but sensation was absent in the right arm and feeble in the leg. Speech was greatly affected and after a few days deglutition became impaired. The patient retained voluntary movements in the right side, but he could not direct his movements well. He died of broncho-pneumonia.

Dr. SIBSON.

733. Hæmorrhage into the centre of the pons varolii. There was also hæmorrhage into the left optic thalamus and ventricles.

From a man who had granular kidneys, atheroma, and hypertrophied heart.

Dr. SIEVEKING.

734. Clot in the right lobe of the cerebellum projecting into the vallecule.

From a lady aged fifty. Violent vomiting and mæna were the chief symptoms. There was no ulceration of the intestines.

Dr. BROADBENT.

735. Clots in the left lobe of the cerebellum. The blood has appeared on the surface at one point.

From a girl of sixteen who was found crying and leaning against a wall, complaining of pain in the head. She vomited and when she reached the hospital she was unconscious. She moved all the limbs at different times, moaned and resisted passive movement, and gave evidence of pain when tested. She died two hours after admission. The uterus was congested and the right ovary contained a recent corpus luteum.—*Path. Trans.*, xv. 4.

Dr. BROADBENT.

736. Right half of the brain. The sylvian fissure is opened up, showing the middle cerebral artery occupied at one point by a firm embolus.

From a man aged twenty-four, a rheumatic subject. After two attacks of unconsciousness he died comatose.

Dr. HANDFIELD-JONES.

737. Embolism and consequent thrombosis of the right internal carotid and middle cerebral arteries, with softening of the Island of Reil and the lenticular and caudate nuclei.

738. Red softening of the corpora striata of both sides. The left caudate nucleus is wholly converted into a soft pulp which shows





under the microscope compound granular cells and varicose nerve fibres. The right caudate nucleus is also softened but not to the same degree.

From a man aged twenty-five. There was excessive subarachnoid fluid.

Dr. CHAMBERS.

739. Brain, showing red softening of the right basal ganglia and internal capsule and commencing softening of the left lenticular nucleus. The basilar artery and the right middle cerebral and its branches are completely, and the left middle cerebral is partially, filled with clot.

740. Cyst in the right hemisphere of the brain, from a man aged fifty, who had left hemiplegia for eight years. The cyst-wall is a flocculent vascular membrane. The contents were clear yellow serum. All the arteries are atheromatous.

Dr. SIBSON.

741. A brain, showing thrombosis of the superficial cerebral veins and subarachnoid extravasation of blood.

From a girl aged sixteen, who died of general tuberculosis. There was thrombosis of the superior longitudinal and lateral sinuses, and of the superficial cerebral veins. Death was preceded by convulsions and coma.

742. Thrombosis of the superior longitudinal sinus.

From a child aged two, who died of shock from an extensive burn on the chest and neck.

Mr. LANE.

743. A brain, showing great dilatation of the lateral ventricles. The convolutions are flattened and the corpus callosum was so thinned that it gave way, and is seen in the specimen as a thin lamella.

From a man who had chronic dementia.

744. Two serous cysts of the arachnoid. They contained clear serum. The dura mater over them was thickened.

From a man aged fifty-five, who died from a compound fracture of the leg. Four years previously he had a fit of apoplexy which left him with impairment of sensation and voluntary power.

Mr. COULSON.

745. The wall of an abscess cavity, which was situated in the right anterior lobe of the cerebrum.

Mr. S. LANE.

746. Abscess in the left lobe of the cerebellum due to middle-ear-disease. (See No. 80.) *P.M. Reports*, No. 736, 1890.

From a boy who had pain in the head, delirium, retraction of head and abdomen, irregular breathing, the hydrocephalic cry, and *tâche cerebrale*. He vomited twice. His temperature reached 102°·5.

Dr. BROADBENT.

747. Abscess in the right cerebellar hemisphere. The wall of the abscess is formed of soft brain-substance. The contents were greenish pus. The surface of the cerebellum was sloughing over the abscess.

From a man aged twenty-five, who for eleven years had disease of the right middle ear, latterly with profuse discharge and facial paralysis. He complained of deep-seated pain in the ear and over the side of the head.

Mr. TOYNBEE.

748. Abscess in the anterior part of the right cerebellar hemisphere from disease of the petrous part of the temporal bone following polypus.

From a girl. The dura mater was adherent to the cerebellum opposite the internal auditory meatus, and on removing the brain the abscess-wall gave way at this point.

Mr TOYNBEE.

749. Aneurism of the middle cerebral artery. The tumour was filled with laminated clot, but the spirit has caused the clot to shrink away from the sac. Most of the older part of the clot is brown; the more recent layers are fawn-coloured. The small black clot was formed just before, or just after death, at the point where the aneurism joined the trunk of the artery.

From a man aged forty-one, who was brought in comatose. After death, the middle cerebral artery was found to have ruptured close to its junction with the aneurism, which had grown upwards, widely separating the anterior pillars of the fornix. The lateral ventricles were filled, and the base of the brain was covered, with clot.—*P. M. Reports*, xviii. No. 77.

Sir EDWARD SIEVEKING.

750. Tubercular tumour in the right cerebellar hemisphere. There is but slight connection between the growth and the surrounding brain-tissue.

Mr. LANE.

751. Portions of the brain (hemispheres, pons, and cerebellum), showing tubercular tumours. *P. M. Reports*, No. 43, 1891.

Dr. BROADBENT.

752. A tumour, removed from the brain of a man who became comatose and died after being exposed to the sun in a hay-field.

The microscope shows the growth to be tubercular, and the specimen affords an illustration of the ease with which tubercular tumours can be separated from the surrounding brain-tissue; where, however, they reach the surface they adhere to the pia mater, in which they often have their origin.

Mr. LANE.

753. A circumscribed tumour in the right half of the pons. The microscope shows it to be tubercular.

From a woman aged forty-six, who gave a history of having two fits six months before admission. She had severe headache, double optic neuritis, dilatation of the left pupil, and weakness in the left arm and hand. Later there were aphasia, diminished sensation, hæmaturia, and coma.

Dr. BROADBENT.

754. Extensive syphilitic deposit on the under surface of the dura mater over the anterior surface of the brain. The arachnoid is adherent to the under surface of the deposit.

Dr. BROADBENT.

755. Gumma, involving the right marginal and internal orbital convolutions. The dura mater is adherent to the affected part.

From a man aged twenty-nine, who had epileptiform convulsions, most marked on the left side. There were other gummata in the liver.

Sir EDWARD SIEVEKING.

756. A small tumour, which the microscope shows to be a psammoma springing from the inner surface of the dura mater.

From a woman of eighty, who died of cerebral hæmorrhage. There were no symptoms due to the growth.

Mr. SILCOCK.









757. Round-celled sarcoma springing from the dura mater, and causing a depression on the surface of the brain.

From an infant, who had congenital sarcoma of the frontal bone. See No. 342.

Mr. S. LANE.

758. Glioma of the right cerebellar hemisphere. The growth projects from the lower surface, compressing the medulla below the olivary bodies. The seventh nerve crossed the under surface of the growth, which had eroded the basilar part of the occipital bone. The tumour separated easily from the surrounding tissue. The microscope shows a small-celled and highly vascular gliosarcoma, into which hæmorrhage has occurred here and there.

From a woman aged twenty-five, who had an attack of giddiness nine months before she came to the hospital. Frequent attacks of vomiting, loss of vision, most marked on the right side, occipital headache, pain and rigidity in the neck were the chief symptoms at first; later, vertigo, complete blindness, nystagmus, loss of intellect, inability to walk, wasting of the muscles of the right side of the neck and tongue, and diarrhœa. The latter was the immediate cause of death. Dr. BROADBENT.

759. A brain divided in half, showing a mass of new growth in, and projecting from, the pons. The microscope shows glioma. The tumour is intimately connected with the surrounding brain-tissue.

From a sailor aged nineteen, whose first symptoms consisted of attacks of Jacksonian epilepsy in the right leg. Later, both the right limbs, the left side of the face and tongue, and the left sixth nerve were paralysed. Next the right limbs, and—a rare symptom—the right side of the chest and abdomen became rigid, and the bladder paralysed. The course of the disease, which lasted over a year, was marked by periods of remission of symptoms. The patient died comatose. Dr. BROADBENT.

760. Sarcoma of the brain, occupying the lower part of the left ascending parietal and anterior part of the supra-marginal convolutions. The primary growth was a myxo-sarcoma of the lower jaw.

There was paresis of the right arm.

Mr. NORTON.

761. Masses of growth, which the microscope shows to be cancer, in the dura mater.

From a woman aged forty-five. The growths produced considerable depressions in the brain. There were similar growths in the right temporo-sphenoidal lobe, the cerebellum, the spinal dura mater, the lung, liver, &c. The symptoms lasted for three weeks. There was great and continuous pain in the head, and vomiting. The patient died suddenly.

Dr. BROADBENT.

#### AFFECTIONS OF THE SPINAL CORD.

762. A specimen of fractured spine, showing injuries to the cord. The sixth vertebra is dislocated forwards, and the cord is crushed opposite the upper edge of the seventh. The arches of the vertebræ from the third to the sixth are broken. Blood is effused outside the dura mater, and there is a small softening at the centre of the cord.

From a man aged fifty-eight, who fell on the back of his head from a height of twelve feet. When admitted he had regained consciousness. He had complete

motor, and partial sensory paraplegia, and diaphragmatic breathing. Later, some loss of power and numbness of the upper extremities developed. On examination the flexors of the wrist, the triceps, and pectoralis major on the right, and on the left, the triceps and flexors of the wrist were found to be paretic. The right pupil was dilated. The patient lived eight days.

Mr. NORTON.

763. Abscess of the cord, due to fracture of the fifth cervical vertebra. The cord is opened from behind, and the area of softening is seen to lie chiefly in the right half.

The patient had at first complete paralysis of the right leg, incomplete paralysis of the left leg, paralysis of the bladder and sphincter ani. Later, paresis of the right arm came on. There were occasional rigors. Death took place on the twenty-fifth day.

Mr. S. LANE.

764. Spinal cord showing softening due to fracture of the vertebræ.

Mr. LANE.

765. Spinal cord and membranes. At one part the cord is atrophied and the meninges are thickened and matted together by organised lymph.

From a man aged sixty-four, who lived six months with complete paraplegia due to a fall from a scaffolding. The cord was pressed upon by the body of the last dorsal vertebra which had been compressed and forced backwards on the cord.—*P. M. Reports*, xi. 66.

Mr. LANE.

766. Spinal cord and membranes. The outer surface of the dura mater is covered by a thick layer of inflammatory material. In the middle part of the specimen the dura mater is adherent to the cord, and the latter has undergone inflammatory softening.

From a boy aged fourteen, who had caries of all the cervical and upper dorsal vertebræ. All voluntary movement had been lost in the legs which were flexed, and when forcibly extended slowly returned to the flexed position. Sensation was also impaired—a pin-prick being interpreted as cold. There was a spinal abscess which opened into a bronchus. Death was due to acute tuberculosis of the lungs.

767. Part of a spinal cord, showing softening due to acute myelitis.

From a woman aged forty-three, who had paraplegia and bed sores. She had complained for a long time, and eleven weeks before death violent pain set in between the shoulders. This was followed by a series of fits, and on attempting to rise from bed the next day the patient found she was paralysed in both legs.

Dr. SIBSON.

768. Lower part of a spinal column opened from behind, showing a tumour situated on the right side of the cord which it compresses. The upper end of the tumour is opposite the middle of the eleventh dorsal vertebra, and extends to the lower border of the twelfth. The posterior roots of the 11th and 12th dorsal nerves are stretched over the tumour and were adherent to it. The tumour is encapsuled. Its chief vascular supply consists of branches of the posterior spinal vessels. It was adherent to the edge of the ligamentum denticulatum and to the dura mater, but the adhesions were very easily broken down by the finger. The arachnoid was adherent to the capsule of the growth. The microscope shows the growth to be a fibro-sarcoma.

From a woman aged forty-one, who was in the hospital for some months and left it three years before death. When admitted she complained of a gnawing pain





starting two inches to the right of the upper lumbar spines and running out along the lower border of the twelfth rib above the anterior superior of the right ilium, and when severe, extending across the lower part of the abdomen. Pain was also felt in the thighs from the buttocks to the knees. Sensation was slightly impaired over the lower part of the abdomen on the right side. There was ankle clonus on the right side and later on the left side. Afterwards impairment of motor power in the limbs was noticed. It appeared on the right side first. The right foot assumed the everted position with the toes bent back towards the dorsum. Tumour of the cord was diagnosed and operation recommended, but the patient left the hospital and died with complete paraplegia, bed-sores, and exhaustion.—*Clin. Notes*, 1888, No. 1173.

Dr. BROADBENT.

769. Section of the lower part of a spinal column and spinal cord, with some of the structures of the neck. On the front of the spine are lymphadenomatous lumbar glands matted together and adherent to the spine, and extending into the intervertebral foramina and between the transverse processes to the laminae and spines, which are invaded by the growth. The section shows the body of the 10th vertebra to be almost destroyed by the growth and replaced by a cavity. The vertebrae above the tenth are affected in decreasing extent as high as the 6th, and below it also the 11th and 12th are invaded. The affected parts of the bone present a soft area surrounded by condensed bone. The dura mater is extensively thickened by the growth which opposite the tenth vertebra had extended through the dura along the nerve-roots to the spinal cord which is softened. The mass of glands at the root of the neck involves the left brachial plexus. It also extended into the superior mediastinum, and invaded the left lung. There were no deposits in the spleen. The microscope shows the growth to consist of lymphoid tissue.

From a woman aged twenty-four, who first noticed a lump in the neck fifteen months before death. Soon after the swelling of the glands the patient had pain in the back and over the lower ribs on the left side. Six months before death the glands in the abdomen were enlarged. Both in the neck and in the abdomen the glands varied in size from time to time. Four months before death the patient walked out of the Hospital feeling well, but a fortnight later she was re-admitted complaining of inability to walk. Paraplegia was preceded by shooting pains down the legs and a feeling of tightness round the abdomen. Spasm and pain continued, and large bed-sores developed. The patient died of exhaustion. *P.M. Reports*, 1891. 117. Dr. LEES.

#### AFFECTIONS OF THE PERIPHERAL NERVES.

770. The proximal end of the median nerve, removed one year after its division. Below, a piece of glass is suspended. This was found inside the bulbous enlargement.

From a young woman who some months before admission had cut her forearm with some glass. An incision was made with the view of suturing, but the distal end was altogether fibrous.

Mr. PEPPER.

SERIES XIII.—SPECIMENS ILLUSTRATING AFFECTIONS  
OF THE EYE.

*Presented by Mr. Critchett and Mr. Fuler.*

771. Normal eye of a woman aged twenty. The vitreous has shrunk a little.

772. Rupture in the ciliary region from a blow. Hæmorrhage into the vitreous and anterior chambers. Partial dislocation of the lens.

773. Rupture of the globe in the ciliary region. Hæmorrhage into the anterior part of the vitreous chamber. The lens probably escaped from the wound. The retina is in situ.

The eye was excised five weeks after the accident.

774. Eye-ball removed some months after it was penetrated by a fork. The lens has been completely absorbed.

775. Shot wound. The point of entry is at the sclero-corneal junction, the point of exit a little behind the equator. A cicatricial band joins the two wounds. The lens is dislocated towards the wound, the retina completely detached and drawn into the track of the wound.

Eucleated three months after the injury.

776. Shot wound. The retina is detached by an effusion of blood. The vitreous chamber is full of blood.

Excised fourteen days after the injury.

777. The result of a punctured wound of the globe. The iris and lens are in contact with the cornea. The vitreous humour has shrunk, and the fore-part of the retina has been detached.

The shrunken globe was excised three months after the injury.

778. An eye removed thirty-nine years after injury. The retina is completely detached, and the space behind it is occupied by an opalescent mass. The lens is calcareous.

779. Ossification of the choroid, following a penetrating wound inflicted many years previously. Globe much distorted. Cicatrix of wound in the ciliary region. A mass of bone has grown inwards from the choroid. Internal to this are the remains of blood-clot and retina.

780. Half of an eye, corresponding to No. 779.

781. Detachment of the vitreous humour. The lens is opaque and shrunken, the retina in its place. There only remains of vitreous a fibrous band stretching from the optic nerve to the ciliary region.

Removed on account of pain from a man aged twenty-three, thirteen years after injury.









782. Complete detachment of the retina in the tubular form enclosing a small quantity of blood. In several situations the outer layer of the retina is separated and distended in a cyst-like manner by coagulated fibrin. The cavity of the globe is filled with similar material. There is blood in the anterior chambers. The optic nerve-sheath is distended.

The eye was excised by Mr. Power some months after it was damaged by a blow from a fist.

783. Total detachment of the retina.

Removed by Mr. Frost from a boy aged seventeen. The eye had been blind for two years, and recently there had been pain.

784. Retina detached. The lens is absorbed. Within the retina are the remains of the vitreous and some old blood clot.

Due to a wound from a fork inflicted some months before removal.

785. Total detachment of the retina, in the form of a tube.

No history.

786. Anterior staphyloma. The whole globe is larger than normal. The cornea is very prominent and globular. The iris is in contact with the cornea. There is no trace of lens or lens capsule. The ciliary processes are elongated.

Removed from a girl aged fourteen.

787. Shrunk globe, the result of the perforation of an ulcer at the age of two years.

Excised ten years after the ulcer perforated.

788. Suppuration of the vitreous. The lens is opaque and in contact with the cornea which is ulcerated.

789. Old inflammatory changes in the fundus. Retinitis and choroiditis.

790. Glaucoma. The anterior chamber is very shallow and the lens in contact with the base of the iris.

791. Section of an eye affected with chronic glaucoma. There is deep cupping of the optic disc.

792. Cavernous tumour of the orbit. The globe is healthy. The optic nerve was excised with the tumour.

Removed by Mr. Juler from a child aged three and a half years. There was great proptosis and a dark mass was visible at the inner side of the globe. There was profuse hæmorrhage at the operation.

793. Sarcoma of the choroid. The growth involves the equatorial and ciliary regions of the globe. The rest of the vitreous chamber is occupied by gelatinous material. The retina is completely detached.

Excised by Mr. Power from a man aged thirty-five. The eye was extremely painful and the lens opaque.

794. Melanotic sarcoma of the choroid. The lens is opaque and pressed forwards against the cornea. The retina is completely detached and seen as a white band in the middle of the section. The cavity of the globe is filled by a black mass which is composed of two distinct parts, the anterior brown and structureless, the posterior black, and having the microscopic characters of melanotic sarcoma.

From a man aged thirty-five.

795. Glioma of retina. The growth fills the vitreous chamber.

796. Glioma of the retina. An irregular tumour springs from the posterior part of the retina and occupies a little less than half the vitreous chamber. All the rest of the globe is filled with a structureless white substance.

Removed by Mr. Juler from a child aged four.

797. Glioma (?) of retina. The retina is merged in a greyish soft mass in which no structure is visible. The anterior chamber is very shallow.

Removed from a child aged eighteen months.

798. An upper eyelid, showing deposit of urate of soda beneath the conjunctiva.

From a man who had chronic gout.

Mr. SILCOCK.

#### SERIES XIV.—DISEASES OF THE EAR.

799. Half a pearl collar-stud which a child of eight had forced into his ear. The body was found to be firmly fixed against the tympanic membrane. It was removed under chloroform by a hair-pin bent at the end.

Mr. SILCOCK.

800. An aural polypus which had been present for some years.

Removed by the snare.

Mr. FIELD.

801. Part of a skull showing disease of the temporal bone due to purulent otitis media. Projecting through the external meatus is the base of a polypus. A blue glass rod passes through the anterior and posterior walls of the tympanum, and shows them to be partly destroyed by caries. The dura mater which covered the posterior wall was destroyed, the pia mater of the cerebellum was adherent to the bone, and the left lobe of the cerebellum contained a large abscess. See No. 746.

From a boy who had a purulent discharge from the left ear for two years.

Dr. BROADBENT.

802. A temporal bone, showing hyperostosis of the external meatus.

Mr. E. W. ROUGHTON.





803. Left temporal bone affected by caries, due to middle ear disease. A longitudinal section has been made showing that the posterior wall of the tympanum and the mastoid bone are the parts affected. The inner surface of the mastoid portion of the bone where it constitutes the groove for the lateral sinus is extensively destroyed.

From a man aged twenty-two, who for sixteen years had been deaf in the left ear which discharged occasionally. A month before death he was seized with great pain in the left side of the head and became delirious. On admission he was morose and semi-conscious. There were several discharging sinuses over the temporal bone. After a free incision had been made the patient improved, and was able to answer questions. The pain however became worse, and coma and death followed. Over the affected part of the bone the dura mater was thickened and softened. There was an extra dural abscess and purulent meningitis over the cerebellum and over the occipital lobes of the brain. *P. M. Reports*, xiv. 80. Mr. FIELD.

804. Caries of the petrous part of the temporal bone.

From a boy who had facial paralysis. The seventh nerve was exposed in the tympanum. *P. M. Reports*, iv. Mr. TOYNBEE.

805. The middle and internal ears of a deaf mute. In the upper one (left) the cavity of the tympanum is filled with a dark membrane. In the recent state it was filled with pus. The cavity is enlarged, and in life opened behind the pinna, where there was a constant discharge of pus. The lower (right) tympanum is empty. In the recent state it was filled with caseous matter.

From a girl of nineteen, who died of tubercular peritonitis. At the age of five during an attack of scarlet fever, she had double otitis which destroyed hearing. Speech was lost soon afterwards. *P. M. Reports*, xvi. 55. Mr. FIELD.

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## SERIES XV.—AFFECTIONS OF THE ALIMENTARY TRACT AND THE PERITONEUM.

806. Epithelioma removed from the right commissure of the lips.

From a man aged fifty, who smoked a clay pipe. The growth recurred and grew so rapidly that six months after the operation the jaws were fixed. Mr. OWEN.

807. The teeth of the upper jaw from a girl aged seventeen, who had congenital syphilis. The central incisors are notched and inclined towards each other. The lateral incisors and the canines are pegged.

Mr. SILCOCK.

808. Tongue, part of the jaw, larynx, &c. Epithelioma affecting the base of the tongue, both tonsils, and the epiglottis. The remains of the latter hang over the larynx. There is a large mass of cancerous glands on the left side of the neck. The microscope shows squamous epithelioma.

From an old man who died of broncho-pneumonia. His breathing was noisy the last months of life. *P. M. Reports*, 1891. No. Mr. OWEN.

809. Furred tongue, showing great increase in length of the conical and filiform papillæ.

Dr. MAGUIRE.

810. Epithelioma of the tongue. The new growth is white and vertically striated; superficially it is ulcerated, deeply it contrasts with the muscular tissue of the tongue.

811. Half a tongue showing well marked ichthyosis and three epitheliomatous ulcers. One of the ulcers has been incised to show the depth to which the new growth extends.

From a man aged thirty-seven, who had ichthyosis for two years and ulceration for three months. One gland was enlarged. There was neither salivation nor pain. The whole tongue was removed and the patient was well in three weeks.

Mr. PEPPER.

812. Epithelioma of the tongue. The cut section shows several white masses of growth which began in the floor of the mouth. The organ was greatly enlarged from œdema.

From a man aged thirty. The tongue had been enlarging for two months. Part of the jaw was removed with the tongue, and the section through the symphysis shows that the growth has invaded the bone.

Mr. NORTON.

813. The last stage of epithelioma of the tongue, which is perforated by ulceration. The new growth has spread to the floor of the mouth, the gum, and the lower jaw. The deep cervical and sub-maxillary lymphatic glands are the seat of secondary growths which have extended to the skin and form a fungating mass reaching from the chin to the sternum.

From a man aged twenty-nine who died of exhaustion.

Mr. NORTON.

814. The structures of the neck showing a wound in the pharynx. Both carotid sheaths were traversed but the vessels escaped.

From a woman aged forty whose husband stabbed her with a dinner-knife. The external wound was a little below the upper border of the thyroid cartilage. The bleeding was easily stopped. When the patient's mouth and nose were closed expired air escaped from the wound. Food was given by the rectum. There was only slight purulent infiltration of the tissues of the neck. Death was due to septic broncho-pneumonia.—*P. M. Reports*, xvi. 63.

Mr. J. LANE.

815. Pharynx and fauces showing sloughing of the tonsils.

From a youth of seventeen who had lymphadenoma of the tonsils, lymphatic glands, and viscera, and who died of exhaustion. The disease lasted eight months.

Sir EDWARD SIEVEKING.

816. A Farthing.

From the œsophagus of a child aged one year and a half. It had been impacted for three years, and was ejected after an emetic had been administered.

Dr. HANDFIELD-JONES.

817. Fish-hook removed by a probang from the œsophagus.

The patient, an old man, had swallowed it by accident a month before. It caused no inconvenience.

Mr. LANE.







818. Œsophagus and trachea showing a piece of white metal an inch wide and curved like an "S," projecting into both passages.

From a guardsman who was unconscious of its presence. He had swallowed it with some "bouilli" during the first Egyptian campaign. He died of phthisis set up by irritation caused by liquids entering the trachea from the œsophagus.

Dr. BROADBENT.

819. Pharynx and œsophagus showing syphilitic ulceration.

From a patient who died at the Lock Hospital.

Mr. GASCOYEN.

820. Parts of an œsophagus and a left lung showing post-mortem perforation of the former, and softening of the latter.

From a boy who died of tubercular meningitis.

821. Dilatation of the œsophagus.

From a man who was admitted for cough, dyspnœa, and dysphagia. There was an aneurism of the first part of the arch of the aorta.

Dr. SIBSON.

822. Stricture of the œsophagus due to epithelioma. The narrower part was no larger than a crow-quill. The thickened walls are infiltrated with squamous epithelioma, and joined to the vertebræ by adhesions. The growth extends upwards over the cricoid cartilage.

From a man aged sixty. Tracheotomy was performed for dyspnœa, due to œdema glottidis. There were secondary growths in the lungs, liver, &c.

Dr. ALDERSON.

823. Epithelioma of the œsophagus, with ulceration into the pericardium and pericarditis.

From a woman aged twenty-five, who began to vomit four-and-a-half months before death. She had agonising pain in the epigastrium, and pain between the shoulders. To the patient food seemed to lodge opposite the top of the sternum. Death was sudden. After death the pericardium was found to be distended with gas and yellow liquid.—*P. M. Reports*, Vol. i. 43.

Dr. CHAMBERS.

824. Malignant stricture of the œsophagus, with mediastinal glands infiltrated with secondary deposits adherent to the œsophagus.

Mr. S. LANE.

825. Epitheliomatous stricture of the œsophagus an inch below the level of the aortic arch. The descending aorta has been incised, showing a mass of growth beneath it.

From an old man who for a long time had symptoms of stricture, and who died of broncho-pneumonia.

Dr. BROADBENT.

826. Epithelioma of the œsophagus ulcerating into the trachea and left bronchus.

Mr. PEPPER.

827. Malignant growth in the œsophagus, which the microscope shows to be squamous epithelioma. The growth is farthest advanced on the right side, where the wall of the internal jugular vein is infiltrated, and the vein thrombosed.

From a man who for seven years had colloid cancer of the spermatic cords (No. 1,330), and of the peritoneum.

Sir EDWARD SIEVEKING.

828. Part of the œsophagus showing hypertrophy in its walls, due to a malignant stricture lower down. The mucous lining is in a papillomatous state.

Mr. SILCOCK.

829. Œsophagus, stomach, and part of a right lung. In the former are two epitheliomatous strictures; the upper, opposite the bifurcation of the trachea, the lower, close to the stomach. The mucous membrane between the strictures presents several nodules of growth. There is a perforation communicating with a large cavity in the lung. Part of the abdominal wall adheres to the stomach, and shows the opening made in a successful gastrostomy.

From a man aged fifty-four who died of broncho-pneumonia a month after gastrostomy was performed. Symptoms had been present for four months. There was pain referred to the lower end of the sternum. *P. M. Reports*, 1891. No. 141.

Mr. PAGE.

830. Squamous epithelioma obliterating the last part of the œsophagus and extending on to the stomach.

831. Stomach, from a case of oxalic acid poisoning.

832. The mucous membrane of a stomach which sloughed and was vomited up three weeks after a large quantity of oxalic acid had been taken with suicidal intent.

From a middle-aged woman who died of vomiting and exhaustion a week after ejecting this slough.

833. The tongue, gullet, stomach, and part of the small intestine from a man who poisoned himself by taking a mixture of nitric and sulphuric acids.

834. The lower portion of the œsophagus, the stomach, and great omentum from a case of sulphuric acid poisoning.

835. Tongue, gullet, and stomach. The latter is everted and shows perforation and charring. The tongue and gullet are covered with a thick white coat.

From a child aged two-and-a-half years who died twenty-four hours after taking some commercial sulphuric acid.

836. The lower part of the gullet and stomach. The former has its mucous lining and its mucous glands rendered white and opaque, and its rugæ prominent, the stomach is charred and perforated.

From a man who poisoned himself by sulphuric acid.

Dr. ALDERSON.

837. A stomach and part of the small intestine, from a case of carbolic acid poisoning. *P. M. Reports*, Vol. xvii. 148.

838. Portion of the stomach showing atrophy of the solitary glands.

Dr. HANDFIELD-JONES.

839. Perforating ulcer of the stomach. The orifice looks as though punched out. The surrounding mucous membrane is thickened.

From a healthy-looking girl aged twenty-four who had no symptoms until one day immediately after breakfast she was seized with violent pain in the epigastrium. The pain increased till the following day when it subsided. Later in the same day the patient got out of bed and died suddenly.

Mr. GASCOYEN.





840. Perforating ulcer on the posterior surface of the stomach, near the œsophageal opening. The mucous membrane is everywhere thickened, and there are several other ulcers.

From a man aged fifty-six who had lived abroad. For some time he had vomited for two hours after every meal. Sudden pain immediately followed a large meal and death occurred sixteen hours later. Mr. OWEN.

841. A large ulcer on the posterior surface of the stomach. The edges are steep. The base adheres to the pancreas.

842. A stomach showing numerous small ulcers, chiefly along the lesser curvature.

From a robust looking man aged sixty-three. He died suddenly after a long coach journey in cold weather. The heart and kidneys were fatty and the brain congested.

Dr. HANDFIELD-JONES.

843. An ulcer of the stomach as big as a florin. The base of the ulcer consisted of peritoneum, which gave way in mounting the specimen. The mucous membrane is everywhere thickened.

From a man aged fifty-six who died of exhaustion and vomiting. He had been in India for some years and was a free liver. He had been subject to hæmatemesis for twenty-six years. There was never any great pain on pressure. Dr. CHAMBERS.

844. Stomach and neighbouring parts with a piece of small intestine and the corresponding mesentery, showing changes due to chronic gastritis, perihepatitis, and peritonitis. The stomach is greatly thickened, especially in its pyloric half, and ulcerated in several places. All the omenta are thickened and contracted. The common bile-duct is obliterated and the gall-bladder thickened and contracted; the bile-ducts are dilated, and were distended with thin bile. The microscope shows the changes to be purely inflammatory.

From a bus-conductor aged thirty-seven who was jaundiced, had enlarged liver, and piles, and for four months before death he had vomiting, blood-stained latterly, and epigastric pain. Fourteen years before death he had syphilis. He took on an average twenty-five "whiskies" a day. *P. M. Reports*, 1891, 62.

845. Pyloric end of a stomach. The opening is contracted and puckered.

From a woman aged thirty-two who had symptoms of gastric ulcer three years before death, later frequent attacks of vomiting alternated with periods of comparative comfort. She died of exhaustion due to vomiting and hæmatemesis. The stomach was greatly thickened and dilated, and the pyloric end was adherent to the surrounding parts.

Dr. M. HANDFIELD-JONES.

846. Stricture of the pylorus, and there is a cicatrix quarter of an inch in thickness.

From a woman aged forty-five who six weeks before death had swallowed by mistake some strong solution of chloride of zinc (Burnett's fluid). Dr. MARKHAM.

847. Small spindle-celled sarcoma projecting from both the peritoneal and mucous surfaces of the stomach.

From a woman aged forty-eight who died of strangulated hernia. This was the only growth found.

848. Columnar epithelioma of the pylorus. In parts the growth has undergone colloid degeneration.

MR. COULSON.

849. Stomach opened along the lesser curvature to show an irregular ulcer at the pyloric end. The everted edges were soft and friable. The glass tube passes through the pylorus into the duodenum, to which a part of the liver is firmly adherent. At the back of the stomach is the pancreas which is infiltrated. The neighbouring lymphatic glands contain secondary growths and are greatly enlarged. The microscope shows a soft tubular cancer.

From a man aged thirty-five who began to have pain after food eighteen months before admission, he was in the hospital two months. At first pain came on an hour after taking food, but for a few days before death it came on a few minutes after the meal and lasted till the food was ejected.

DR. SIBSON.

850. Part of a stomach greatly thickened in its pyloric half by a deposit of new growth, both sub-mucous and sub-peritoneal. The muscular coat is hypertrophied.

From a man aged thirty-eight who had malignant disease of the bones, heart, and other viscera.

851. Colloid cancer of the stomach with fistulous openings between the stomach and colon. Death was preceded by vomiting and jaundice.

From a man aged sixty-three who received a blow on the left hypochondrium eighteen months before death. An abscess formed and was opened. A month before death about half the front of the belly was occupied by a brawny swelling. This was incised opening a cavity which communicated with the stomach and the transverse colon. Death was preceded by vomiting and jaundice.

MR. URE.

852. Pyloric end of the stomach showing a cancerous stricture. The growth projected into the duodenum.

From a woman in whom before death a lump as large as an egg could be felt.

853. Pyloric end of the stomach and beginning of the duodenum. Everted to show cancer of the pylorus.

854. Stomach surrounded towards the pyloric end by a mass of sub-peritoneal growth which greatly narrows the organ. The muscular coat is hypertrophied at the affected part. The microscope shows a structure resembling scirrhus of the breast. There is no sign of the growth having begun in the mucous membrane which is only thickened by inflammatory exudation. There were secondary deposits throughout the peritoneal viscera.

From a woman aged forty-seven who died of exhaustion.—*Clinical Notes*, 1882, 792.

DR. MEADOWS.

#### AFFECTIONS OF THE SMALL INTESTINE.

855. A duodenum showing a congenital defect. At its middle there stretches across the lumen a septum perforated by an orifice which admits a finger, and at one side a pouch as big as the thumb of a glove hanging downwards. The bile-duct opens on the under surface of the septum.—*Path. Trans.* xxxvi. p. 207.

MR. SILCOCK.







856. A piece of the ileum three feet above the ileo-cæcal valve, with a dilated Meckel's diverticulum.

857. Complete obliteration of the ileum sixteen inches above the ileo-cæcal valve. The gut is collapsed and atrophied from the point of obliteration to the anus. The obliteration corresponds to the attachment of Meckel's diverticulum, and is due to excess of the process of atrophy, by which the diverticulum normally disappears.

From an infant which died a few days after birth.

858. Rupture of the ileum and hæmorrhage into the mesentery. The edges of the wound are covered with lymph.

From a man who was struck on the abdomen by the shaft of a cart and who died twenty-four hours later. There was general peritonitis. Mr. SPENCER SMITH.

859. A portion of jejunum presenting at its free border a circular opening one quarter of an inch in diameter. There is lymph around the opening.

From a boy aged four over whose abdomen passed the wheel of a heavy van. He vomited on the way to the hospital. When admitted he was in a state of collapse from which he quickly rallied. The day after, he was violently sick. The abdomen was tender and the respiratory movement absent. The liver dulness was replaced by resonance. After death gas, fæces, and pus were found in the abdominal cavity. The rupture was found in the lower part of the jejunum. The pelvis was fractured.—*P. M. Reports*, No. 170, 1891.

860. The first part of the duodenum with a perforating ulcer situated immediately beyond the pylorus.

From an Oxford Professor who fell down and died in a street in London.

Mr. S. LANE.

861. Ulceration of the duodenum following burns. Perforation probably took place after death. No signs of peritonitis were found.

From a child who lived twenty days with extensive burns. Mr. HAYNES WALTON.

862. Part of the ileum showing changes due to chronic Bright's disease. There are several ulcers, one of which has perforated. The peritoneal surface has lymph upon it. The Peyer's patches are normal.

From a woman aged twenty-eight who had peritonitis and pericarditis and contracted granular kidneys. There had been œdema of the legs for two months before death. Abdominal pain came on three days before death.

Dr. SIBSON.

863. Part of the ileum showing white globules beneath the mucous membrane. They contain a milk-like liquid. The globules dissolve in ether. The mesenteric glands were excavated and a similar liquid filled the cavities in them. The cavities in the intestine are probably distended lymphatics, as they lie alongside the blood-vessels. There was a similar condition throughout the small intestine.

From a man who died of thoracic aneurism, and whose tissues showed changes attributable to chronic alcoholism.

864. Typhoid ulceration. The injection shows increased vascularity of the Peyer's patches.

Mr. BAKER.

865. Typhoid ulcers. The swollen and sloughing Peyer's patches adhere to the base of the ulcer but have separated from the mucous membrane.

866. Ileum with many typhoid ulcers.

From a boy aged fourteen who died in the thirteenth week of his illness.

Dr. SIBSON.

867. Portion of the ileum with ulceration and perforation due to typhoid fever.

Dr. SIBSON.

868. Typhoid ulceration of the ileum and cæcum.

From a girl who died after she had been in hospital fifteen days.

Dr. CHAMBERS.

869. Piece of small intestine showing enlargement of the solitary glands from a case of Asiatic cholera.

Mr. S. LANE.

870. Parts of the ileum cæcum and ascending colon with tubercular ulcers.

From a patient who had pulmonary phthisis and colliquative diarrhœa.

Mr. S. LANE.

871. Tubercular ulceration of the small intestine. Tubercles are seen beneath the serous coat.

From a man aged thirty-eight who died of pulmonary phthisis.

Dr. CHEADLE.

872. Tubercular ulceration of the lower end of the ileum, the cæcum, and the beginning of colon.

From a man aged thirty-two who had tubercle of the lung and died after suffering from colliquative diarrhœa for three weeks. Small ulcers were present in the stomach and thence in increasing numbers to the colon, where the surface was universally thickened and ulcerated.

Dr. SIBSON.

873. Adhesion and communication between two folds of small intestine due to tubercular ulceration. The aperture admits the tip of the little finger. An adhesion stretched from the affected spot to the mesentery and caused strangulation by kinking.

From a boy aged three who had a flushed face and rapid pulse and apparently great pain in the head, which he rolled from side to side. He had also constipation and vomiting. The pupils were dilated and unequal on the day before death. At the autopsy a strangulated loop of bowel was found, but in the brain nothing but congestion.

Dr. SIBSON.

874. Tubercular ulceration of the intestine, adhesion of two contiguous folds, tubercles are seen beneath the peritoneum.

From a woman aged thirty-six who had ulceration of the tongue and intestine and pulmonary tubercle.

Mr. SPENCER SMITH.

875. Portions of jejunum and ileum showing thickening and also ulceration of Peyer's patches and the solitary glands.

From a case of chronic obstruction of the colon.

Dr. BROADBENT.





876. A piece of small intestine affected with myxosarcoma. Numerous nodules of growth project from the mucous membrane.

877. Part of the ileum with a soft growth ulcerated at two points.

From a man aged thirty-four, who died with generalisation of cancer of the testis.

878. Cancerous deposits in the small intestine secondary to cancer of the ovary.

NORTH COLLECTION.

879. A vermiform appendix cut open. It is ulcerated and greatly dilated.

From a healthy-looking girl of twenty, who died after ten days' illness. Obstinate constipation was followed by signs of peritonitis. There were several large concretions in the appendix. The aperture of communication with the cæcum admitted the little finger.

Dr. BASTIAN.

880. Perforation of the appendix. Near the base its walls are gangrenous over a bulging which corresponds to a concretion within.

881. Vermiform appendix containing a black pin, around part of which is a cylindrical concretion. The point is bare, and projects into the cæcum. The walls of the appendix and the neighbouring parts of the cæcum are thickened. In the recent state there was no ulceration or sign of acute inflammation.

From a woman aged thirty-seven, who died of pyæmia. There was one large and two or three small abscesses in the liver. The gall-ducts and the portal vein were normal. There was also a small abscess in the left lung. Though there were no changes in the portal vein at the time of death, it is probable the irritation about the appendix was the cause of the abscesses in the liver.—*Path. Trans.*, vol. xxi. p. 231.

Dr. PAYNE.

882. Tip of the appendix with a perforating ulcer. The appendix and the neighbouring parts are thickened from chronic inflammation. No concretion was found.

From a child who died of purulent peritonitis.

Mr. OWEN.

883. Cæcum with appendix and end of ileum ulcerated and thickened. A collection of damson stalks, skins, and stones were found in the cæcum. One of the stones, coated with phosphate of lime, had caused perforation and fatal peritonitis.

From a woman aged twenty-two.

884. The cæcum and the end of the ileum infiltrated with new growth, which the microscope shows to be lympho-sarcoma. Nodules project from both the serous and the mucous surfaces. The lumen of the gut is greatly narrowed.

From a woman aged thirty-five, who had similar growths in many parts of the body.

Dr. BROADBENT.

885. Cancerous growth projecting into the gut on each side of the ileo-cæcal valve, and extending round the colon just above the cæcum, which is dilated, as is also the appendix.

## AFFECTIONS OF THE LARGE INTESTINE.

886. The parts involved in inguinal colotomy. The sigmoid flexure is opened, and a loop of small intestine adheres to the parietes opposite to the wound.

From a case of imperforate anus. The rectum had been opened from the perinæum, but this proved insufficient. The child lived three months.

887. The parts involved in a left lumbar colotomy, performed on a child, aged seventeen months, for obstruction due to a large sacral tumour, No. 531.

The operation was easily accomplished, in spite of the small size of the patient.  
Mr. PEPPER.

888. An artificial anus. Two masses of alveolar new growth are seen to adhere to the intestine.

From a man aged fifty-seven, who died a fortnight after lumbar colotomy. There was a cancerous stricture of the sigmoid flexure, and cancer of the peritoneum. Death was due to acute strangulation of a loop of small intestine by an adhesion-band.

Mr. OWEN.

889. Ulceration and rupture of the transverse colon due to cancerous structure of the rectum. See 911.

890. The transverse colon extensively ulcerated from typhoid fever. In the small intestine the Peyer's patches were swollen but not ulcerated, while numerous ulcers were found in all parts of the large intestine.

From a woman aged twenty-six who had a well-marked typhoid-rash and died of septicæmia and pulmonary embolism.—*P.M. Reports*, Aug. 22, 1890. Dr. MAGUIRE.

891. The lower part of the colon including the greater part of the rectum showing changes due to dysentery. The mucous membrane is thickened, coated over the convexity of the rugæ with sloughs which are almost continuous in the rectum. The intestine was rigid and friable.

From a male aged nineteen who had diarrhœa and melæna for ten weeks before he died of peritonitis.  
Dr. SIBSON.

892. A part of the large intestine showing ulceration from dysentery. The whole of the bowel from the ileo-cæcal valve to the anus was in a similar condition. Patches only of the mucous membrane remain. Many of the ulcers had exposed the peritoneum.

From a woman aged fifty-three who died of exhaustion.  
Mr. URE.

893. The cæcum and the colon showing extensive ulceration. The change is farthest advanced in the rectum. The pigmented shreds are the remains of the mucous membrane attached where the vessels enter it. The small intestine is unaffected.

From a woman aged thirty-five who had diarrhœa twelve months before death. She had also severe hæmorrhage. The swollen and undermined mucous membrane in the ascending colon is reticulated by ulceration, and it held in its meshes small masses of hard fæces, and in life felt like a solid tumour. Death from exhaustion.—*P. M. Reports*, Dec. 1, 1890.  
Dr. CHEADLE.







## 894. Part of the tranverse colon showing a fibrous stricture.

Removed from a man who for some years had intestinal obstruction. The intestine is greatly distended above the stricture. Dr. RANDALL.

## 895. Portions of the colon presenting extensive ulceration, which the microscope shows to be tubercular. The intestine is greatly thickened.

From a patient who died of pulmonary phthisis and diarrhœa.—*Path. Trans.*, vol. xxxv. p. 211. Mr. SILCOCK.

## 896. The ascending colon showing a lipoma projecting into the lumen of the bowel. The tumour is as large as a duck's egg and is covered with mucous membrane.

Mr. OWEN.

## 897. Columnar epithelioma of the ascending colon. It caused almost complete obstruction. Above the growth the bowel is dilated and atrophied. The Peyer's patches are ulcerated.

## 898. Columnar epithelioma of the ascending colon. The growth has invaded the parts external to the gut. In the mass of new growth there is a cavity which opens into the bowel. Above the structure the bowel is dilated and hypertrophied.

From a woman of sixty-five who had long suffered from obstruction.

## AFFECTIONS OF THE RECTUM AND ANUS.

## 899. The pelvic organs of a female child, showing an imperforate anus and an opening which connects the rectum with the upper part of the vagina.

From a child aged five-and-a-half years. The patient passed all its fæces by the vagina. It was brought to the hospital for incontinence of fæces and ill-health. The opening in the vagina was enlarged but the child died of exhaustion from vomiting and diarrhœa. After death the rectum was found to be greatly dilated containing five pints.—*P. M. Reports*, v. 754. Mr. LANE.

## 900. The pelvic region of a female infant, showing non-development of the lower part of the rectum and an inguinal colotomy.

A blue glass rod passes from the anal depression to the peritoneal cavity in the track of an exploration trochar which was used during life. Mr. SILCOCK.

## 901. The pelvic region of a still-born female child. The rectum ends blindly at the uppermost part of a two-horned uterus. The ischial tuberosities are in contact and the coccyx is close to them.

## 902. A dissection showing non-development of the lower part of the rectum. The anal invagination is present immediately below the prostate to which the rectal cul-de-sac is joined by a fibrous cord two and a half inches long. A narrow tube of peritoneum passes for more than one inch along the fibrous cord.

From an infant on whom inguinal colotomy was done.

Mr. OWEN.

## 903. A section through the bladder and rectum of an infant. The rectum ends opposite the base of the prostate, and there opens by a narrow passage into the bladder. The bladder is hypertrophied, the rectum is dilated and thinned.

904. A mesial section through the rectum, bladder, &c., of a male infant. The anus is imperforate. In the interior of the rectum is a solid conical red mass, consisting of blood clot covered by mucous membrane. The glass rod marks the track of a trochar which wounded the peritoneum.

The infant became blanched and died after an operation. A trochar was first inserted and a little meconium obtained. An incision was then made in front of the coccyx and a fruitless attempt made to find the rectum. The section shows that blood escaped into the submucous tissues dissecting up and inverting the mucous membrane. At the autopsy the blood beneath the mucous membrane was firmly coagulated. There was much liquid blood mixed with meconium in the rectum above the cone of inverted mucous membrane. *P.M. Reports*, 1891.

905. Two foreign bodies extracted by the anus from a child aged fifteen months. There had been obstinate constipation and spasm of the sphincters. Syme (1856) at the Edinburgh Infirmary divided the external sphincter and extracted the bodies with forceps.

Dr. MURCHISON.

906. The rectum showing a perforation above and several ulcers below.

From a middle-aged woman in whom a pelvic abscess opened into the rectum.

907. The lower parts of a rectum and vagina. The rectum is extensively ulcerated and thickened in the lower four inches. There are abscess cavities, one three inches above, the other at the side of the anus, and two fistulæ, one opening into the fossa navicularis, the other at the margin of the anus. Probably syphilitic.

From a woman aged forty-one in whom a painful swelling at the side of the rectum appeared suddenly when she was wringing-out clothes. A fistula followed. A tight stricture was found one inch above the anus. This was incised and dilated. The patient died of pyæmia.

Mr. S. LANE.

908. Fibrous stricture of the rectum two and a half inches above the anus.

From a woman aged twenty-nine. The stricture was slightly incised in three places and then dilated. Eight days later the patient died of peritonitis.

Mr. OWEN.

909. The lower end of a rectum showing internal piles protruded beyond the anus. An incision has been made into one of the piles to show the dilated veins filled with clot.

Mr. SILCOCK.

910. A rectum opened longitudinally showing a polyp (adenoma) with papillated surface.

Mr. SILCOCK.

911. A rectal polyp (adenoma). An incision has been made into the growth and shows a surface studded with minute orifices. The microscope shows tubules lined with a single layer of columnar cells, and supported by connective tissue.

Removed from a woman of twenty.

Mr. BLAND SUTTON.





912. Part of the sigmoid flexure and the rectum. The former shows a large irregular perforation, the latter a cancerous stricture which has a characteristic resemblance to the os uteri. There are several piles below the stricture.

From a woman aged forty-seven, who had had symptoms of obstruction for fifteen months, when perforation took place. Mr. J. LANE.

913. The lower end of the rectum and the anus affected with squamous epithelioma.

Removed by the thermo-cautery. Death was due to severe hæmorrhage on the third day. Mr. OWEN.

914. The upper part of a rectum with an epithelioma which the microscope shows to be columnar-celled.

From a woman aged sixty-three, who died after perforation of the transverse colon. See No. 888.

915. Part of a rectum affected with cancer. The cut surface shows the growth to be colloid. The microscope shows a columnar-celled epithelioma, in which many of the tubules are distended with colloid matter resulting from the degeneration of the epithelial cells.

#### AFFECTIONS OF THE PERITONEUM.

916. Part of the small intestine with pendulous vesicles attached to it. The microscope shows the vesicular bodies to consist of the ordinary peritoneal and sub-peritoneal tissues thickened by inflammatory tissue and the gas-containing spaces to be lined by large cells containing many nuclei.

From a man aged twenty-six who had a gastric ulcer which had perforated. The vesicles began in the jejunum and reached as far as the cæcum. A few contained blood, the others a gas which was not fætid, and which Dr. Russell found to have the composition N. 94.25, O. 5.8, CO<sub>2</sub> 67. Death was preceded by collapse and tetanic spasm. — *P. M. Reports* xii. 1.

Dr. HANDFIELD-JONES.

917. Part of a uterus and appendages. The peritoneum is thickened and granular from chronic peritonitis. The microscope shows the nodules to consist of fibrous tissue.

From a woman aged twenty-two, who died of pneumonia and pericarditis, and who said she had had inflammation of the womb. — *P. M. Reports*, 1883, 77.

Sir EDWARD SIEVEKING.

919. Intestine and mesentery showing tubercles varying in size from a pea to a pin's head.

From a man aged forty-one, who had tubercular ulcers in the stomach and duodenum, and tubercle of the lung. He died of exhaustion due to vomiting.

Sir EDWARD SIEVEKING.

920. A piece of small intestine and mesentery showing tubercular peritonitis, with effusion of much lymph. All the intestines were matted together.

Dr. MURCHISON.

921. A portion of small intestine studded with sub-peritoneal nodules.

From a man aged fifty-seven, whose skin had for twenty years been studded with firm nodules, and in whom a month before death (due to exhaustion) ascites appeared. The microscope showed the skin-lesions to be fibrous, the peritoneal formations to be tubercular.—*Path. Trans.* xii. 212.

Dr. SIBSON.

922. A piece of small intestine and mesentery injected to show the enlarged lacteal vessels leading to tubercular lymphatic gland.

Mr. S. LANE.

923. A portion of the great omentum much thickened. The microscope shows it to be infiltrated with tubercles.

From a man aged thirty-six who had tubercle of the lungs and peritoneum.—*P. M. Reports*, vi. 893.

Dr. SIBSON.

924. A hydatid cyst cut open showing numerous daughter-cysts adhering to the lining. The microscope shows (1) an outer fibrous coat; (2) the laminated cuticle of the parasite; (3) the cellular body-parenchyma bearing brood capsules, some of which are small and contain a single echinococcus, while others have developed into daughter-cysts, which also bear brood capsules on the inner surface.

Removed from the peritoneum after death. There was another similar cyst in another part of the peritoneal cavity.

Dr. HANDFIELD-JONES.

925. A large hydatid of the peritoneum. At first sight the cyst appears to be multilocular, but on examination all the spaces were found to communicate, the irregular shape of the colony of parasites being due to its growth in an irregular cavity.

926. Portions of mesentery and intestine. The former contains a collection of enlarged glands as big as a cocoa-nut. The growth projects into the intestine.

From a child aged four, who died of intestinal obstruction. The microscope shows the growth to be lymphadenoma.—*Path. Trans.* 1883-4.

Dr. BROADBENT.

927. A fibroma as large as a man's head, situated between the layers of the small omentum. The microscope shows the growth to be fibroma which is beginning to calcify.

From a woman aged fifty, who had an abdominal tumour for two years. Abdominal section was performed, and the growth was seen not to admit of removal. The patient died soon after the operation.—*P. M. Reports*, 1891, 75.

Mr. OWEN.

928. A portion of the diaphragm and of the anterior abdominal wall, showing nodular sub-peritoneal growths. The whole of the peritoneum was similarly affected. The microscope shows small-celled sarcoma.

From a woman aged thirty-three who had attacks of jaundice and who was admitted with abdominal distension. Paracentesis was performed but there came away only a small quantity of dark gelatinous matter.—*P. M. Reports*, 1883.

Dr. MEADOWS.







929. Part of the diaphragm with malignant growth on its under side. Similar growth was found on the colon and omentum.

From an old woman who had soft cancer of the body of the uterus.

Dr. CHAMBERS.

930. Part of the diaphragm with a deposit of epithelioma on its under surface, secondary to growth of the bladder.

931. A piece of small intestine, showing sub-peritoneal nodules of cancer.

From a woman aged thirty-seven who died of cancer of the ovary.—*P. M. Reports*, xxiii. 47.

Dr. MEADOWS.

932. Cancerous tumour of the great omentum, involving the duodenum, ileum, and ascending colon.

The patient had pain and vomiting for nine months

Dr. SAUNDERSON.

933. Cancerous nodules beneath the peritoneum.

From a woman aged sixty-six who had cancer of the uterus.

Dr. ALDERSON.

934. Cancerous deposit in the peritoneum. The mesenteric and bronchial glands and the pleuræ were also affected. There was no ascites.

From a man aged seventy-five who complained of diffuse pain and tenderness in the abdomen.—*P. M. Reports*, xiii. 124.

Dr. BROADBENT.

#### INTESTINAL OBSTRUCTION.

935. A loop of intestine constricted by a band. There is another band stretching from the back of the bladder to the ileum.

936. Part of the ileum, with the uterus and appendages. A loop of the bowel is strangulated by an adhesion-band which stretches between points of the mesentery.

From a woman aged forty-four who died of intestinal obstruction.

Dr. LEES.

937. The end of a Fallopian tube and a part of the great omentum connected by a firm fibrous band, such as might cause strangulation.

Mr. ROUGHTON.

938. A uterus, etc., and a portion of small intestine. The right Fallopian tube measures twelve inches, the left seven. Both were adherent to the small intestine. The band stretching from the right tube is preserved, and shows that at the point of adhesion all the layers of gut are drawn out into a conical pouch. The great elongation of the Fallopian tubes is due to traction exerted by the intestine in its movements.

From an unmarried lady who had suffered from pelvic peritonitis.

Dr. M. HANDFIELD-JONES.

939. A loop of the ileum narrowly constricted at the centre by scar-tissue resulting from past peritonitis.

From a boy who after eating a large quantity of apples and acorns developed symptoms of intestinal obstruction and died in thirteen days.

940. An ileo-colic intussusception from a female child who had constipation for seven days, and then diarrhœa for the last twenty-four hours before death. Tubercular ulcers were found in the small intestines.

Mr. GRAILY HEWITT.

941. Ileo-colic intussusception. The apex is sloughing.

942. Ileo-colic intussusception, sloughing at the apex, and cut open to show extravasation of blood in the included part of the mesentery.

943. Intussusception of the small intestine.

Taken from a boy aged four who died of pneumonia. An example of the intussusceptions which frequently occur just before death. They are of no clinical importance.

Mr. SILCOCK.

944. A piece of omentum greatly thickened and congested, removed from a strangulated hernia during life.

Mr. LANE.

945. A piece of omentum thickened and inflamed, removed from a strangulated hernia.

Mr. OWEN.

946. A loop of ileum covered with lymph and sharply bent upon itself. The lumen is greatly narrowed.

Removed from a woman who died with persistence of symptoms of strangulation after herniotomy. In the recent state the gut was swollen as well as being held by lymph in the sharply bent form and the lumen completely obstructed.

Mr. PYE.

947. A piece of small intestine intensely congested with subserous and submucous hæmorrhages.

From a patient who died of exhaustion after reduction of a strangulated hernia by taxis.

948. Portions of the last four feet of the ileum, showing membranous enteritis. The mucosa has sloughed.

From a woman aged sixty-six, admitted with symptoms of acute intestinal obstruction and supposed strangulated hernia. There was an umbilical and two femoral herniæ, all easily reduced. There was stercoraceous vomiting. The patient conversed freely and said she had no pain. Death from syncope. The whole of the intestines were congested.

Mr. OWEN.

949. Portion of small intestine in a gangrenous state. Removed from a strangulated hernia.

Mr. SPENCER SMITH.

950. A portion of the ileum which was strangulated in a hernia and shows ulceration of the mucous membrane opposite the seat of stricture, and below it thickening of the gut from œdema.

Mr. JAS. LANE.

951. The sac of a recently descended hernia with a second sac adherent to it but not communicating with it. The smaller sac is an unobliterated part of the processus vaginalis. Removed in doing the radical operation.

Mr. PEPPER.





952. The sac of an inguinal hernia of the right side. Below it is a cyst, of which the serous contents are removed. The cavity of the hernial sac itself is divided into two portions by a thick septum which separates a small spherical portion at the lowest end of the sac, and which has a central perforation as big as a three-penny piece. Some of the spermatic veins adhere to the back of the sac.

From a man aged thirty-two, who said a "rupture" (never completely reducible) appeared fourteen months before he was admitted and grew gradually in size. Two days before he was admitted he was seized with a sudden pain in the right groin. The pain increased. The day before admission he had a normal motion and vomited. On the day of admission he vomited yellow ill-smelling matter.

The House-Surgeon, Mr. Farquharson, found that nearly all the tumour went back with gurgling, but a small portion remained at the external abdominal ring.

Herniotomy was done. A piece of small intestine was found tightly nipped in part of its circumference in the orifice of the septum mentioned above. An example of what is known as Richter's or Littre's hernia. The patient did well, after having some local peritonitis, and right orchitis. The cyst below the sac is an encysted hydrocele of the cord; *i.e.*, an unobliterated segment of the vaginal process of peritoneum distended with serum. The rest of the sac includes the remainder of the vaginal (or funicular) process. The hernial sac projects into the hydrocele. Had the latter remained in communication with the tunica vaginalis, the variety of infantile (Hey), or encysted (Astley-Cooper) hernia which indents the tunica vaginalis would have been produced.—*Case of Sidney Packer.* No. 1161. 1891. Mr. OWEN.

953. An old scrotal hernia, with a thickened and opaque sac, to which the cremaster and other coverings adhere. A piece of omentum has been cut away to show better the loop of small intestine contained in the sac. There is a deposit of lymph on the lining of the sac and on its contents.

From a man aged sixty-four. The hernia had been strangulated and reduced by taxis six days before he was re admitted with the hernia descended. There was pain in the abdomen but no vomiting. Taxis was tried but was ineffectual. The patient then began to vomit and died collapsed. There was a pint of blood-stained serum in the abdominal cavity.

954. Lipoma of the spermatic cord, associated with hernia. The growth adheres to the sac, and lies beneath the infundibuliform fascia. There is a cyst, an unobliterated part of the vaginal process below the sac.

The association of lipomata arising in the sub-peritoneal fat with hernia is not infrequent.

Mr. ROUGHTON.

955. An umbilical hernia with a ventral hernia close below it. The sac is filled with omentum.

From a man aged seventy-three. The upper hernia had existed for years, the lower one appeared four years before the patient came to the hospital with symptoms of obstruction of four days duration. The lower hernia was operated on and reduced without opening the sac. The patient died of sloughing of the strangulated portion of bowel.

Mr. JAMES LANE.

956. A large umbilical hernia. At the neck of the sac are seen a plug of omentum and coils of intestine. The sac was found to contain the great omentum, most of the small intestine, the duodenum and common bile-duct, the pyloric end of the stomach, and the small omentum.

From a woman aged seventy-eight. The protrusion was first noticed after a severe labour thirty years before death when it was as large as a marble. In spite of a truss it increased slowly in size. Up to the day of death the bowels acted regularly and the patient was able to earn a livelihood by selling fruit in the Kensington Gardens. During the last few years of life she could neither stand erect nor lie down but walked and sat bent forwards, the hernia resting on the knees.—*Path. Trans.* Vol. vii, p. 220.

Mr. BOREHAM.

957. A section through an irreducible umbilical hernia. The skin over the tumour is ulcerated. The part of the transverse colon contained in the sac has its lumen considerably narrowed below. The abdominal wall and the mesentery are loaded with fat, and the contents of the hernia are everywhere adherent to the parieties.

From a woman aged fifty-nine who had had an irreducible hernia for four years when she came in with symptoms of strangulation and sloughing of the skin. The temperature of the patient was 102°. After death pleurisy and peritonitis were found.

Mr. OWEN.

958. A large umbilical hernia with an artificial anus which communicates with the transverse colon. The sac contained large and small intestine and the greater part of the great omentum. Numerous firm adhesions made the hernia irreducible.

From a fat woman aged fifty-four who died of exhaustion and congestion of the lungs. When she came to the hospital part of the sac had sloughed necessitating the formation of an artificial anus.—*P. M. Reports*, 1888, 194.

Mr. PAGE.

959. A strangulated inguinal hernia. A small loop of intestine and a large portion of omentum are protruded. Pressure at the neck of the sac has caused ulceration which completely severs one limb of the loop of gut, which is swollen and ruptured.

From a man aged seventy-three who said the hernia first appeared many years before. For nine days he had been constipated, and for two days before he was admitted he had had stercoraceous vomiting. There was no evident tumour but when the patient coughed a slight prominence could be felt at both internal rings. He died before an operation could be performed.

Dr. ALDERSON.

960. The sac of a congenital inguinal hernia in a sloughing state. A diminutive testis is seen below. On the peritoneal side a portion of mesentery is seen adhering to the wound.

From a man aged thirty-eight, There had been vomiting for thirty-six hours when after taxis had been tried herniotomy was done. Symptoms of peritonitis followed and six days later an artificial anus formed and diarrhœa set in. The man lived a fortnight after the operation. After death a portion of the gut was found to be gangrenous and separated from the rest of the intestine. It was shut off by adhesions from the abdominal cavity except at one spot where fœces had escaped into the peritoneal space. With congenital hernia there is frequently an abortive testis.

Mr. COULSON.







961. Encysted or infantile hernia. The rough outer surface of the sac is seen behind the cord and above the testes. The hernial sac is connected with the epididymis by a strong band of unstriped muscular tissue which spreads out over the sac and on which lies the spermatic artery. This band is a prolongation from the gubernaculum and is considered by Mr. Lockwood (*Med. Chi. Trans.*, Vol. lxix. p. 479), as the chief factor in producing infantile hernia.

From a weakly child in whom the protrusion had been noticed seven hours before admission. In operating the tunica vaginalis was first opened and the testis and the sac of peritoneum were exposed. The neck of the sac was strangulated at the point where it entered the tunica vaginalis. On incising the constricting tissues the piece of gut returned. There was no history of hydrocele. The child died of pneumonia.  
—*B. M. J.*, Aug. 1st, 1874. Mr. OWEN.

962. Strangulated femoral hernia with only part of the circumference of the gut constricted. Richter's hernia.

From a woman of fifty who had symptoms some days before coming to hospital. She died of exhaustion after reduction had been effected. The affected part is gangrenous.  
Mr. PAGE.

963. A small femoral hernia.

From a woman in whom the symptoms of strangulation were mistaken for hysteria, and who died two hours after a correct diagnosis had been made.

NORTH COLLECTION.

964. A small femoral hernia.

From a fat woman who died with symptoms of acute obstruction. The hernia was discovered after death.

965. The right anterior pelvic wall, &c., showing an obturator hernia. The pectineus muscle has been raised. The superficial division of the obturator nerve is stretched over the inner side of the sac and the obturator vessels are on the outer side of, and their inner divisions pass below, the neck of the sac. A knuckle of small intestine is protruded. There is lymph thickly coating the peritoneum on the inner side of the specimen.

966. The right inguinal region, showing the cæcum suspended by a long meso-cæcum.

Removed from a child aged four, who died of scarlet fever after herniotomy. The cæcum and appendix were found in the sac at the operation.  
Mr. NORTON.

#### ARTIFICIAL ANUS.

967. An artificial anus from the groin, left after herniotomy. A portion of the ileum opens by two separate slits into a cavity in the abdominal wall. Above the anus the gut is dilated; below, it is contracted.

968. An artificial anus left after herniotomy, showing a well-marked spur.
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SERIES XVI.—AFFECTIONS OF THE SALIVARY GLANDS,  
THE LIVER, AND THE PANCREAS.

969. An encapsuled tumour removed from the parotid. The microscope shows it to be a myxo-chondro-sarcoma.

From a middle-aged man who had first noticed a lump seven years before he came to the hospital. The posterior surface of the tumour was adherent to the temporo-maxillary vein and the external carotid artery. Mr. COULSON.

970. Parotid gland with an encapsuled growth, which the microscope shows to be a myxochondroma.

Removed from a woman in whom the tumour had been growing twenty years.—  
*Clinical Notes*, 1880, 712. Mr. LANE.

971. Myxo-chondroma of the parotid, with a thick capsule.

From a woman. The facial nerve was exposed in the operation, but no paralysis followed. Mr. S. LANE.

972. A tumour removed after death from the parotid. It reached from the zygoma to the clavicle, and from the middle line in front into the posterior triangle, crossing over the sterno-mastoid. It had been growing eight years, and was attributed to a blow. The microscope shows it to be a small-celled sarcoma. Mr. COULSON.

AFFECTIONS OF THE LIVER.

973. Congenital obliteration of the hepatic ducts, which are reduced to thin cords of fibrous tissue.

From a male child, which died at the age of six months and three weeks. There had been jaundice from birth. Dr. NUNNELEY.

974. A liver, showing congenital sub-division, and a hydatid cyst.

The cyst pressed on the inferior vena cava and the right hepatic duct, causing ascites, œdema of the legs, and jaundice. Dr. PHILLIPS

975. Rupture of the liver in which repair has begun.

From a man who was run over by a cab. He was collapsed and had pain over the liver, but improved greatly up to the end of the second day, when after sitting up he died suddenly. After death the 4th, 5th, and 6th ribs on the right side were found to be fractured. The peritoneum contained two and a half pints of blood tinged with bile. All the viscera were stained with bile. The gall-bladder was not injured. Mr. URE.

976. A liver with a deep rupture on the upper surface of the right lobe.

From an old man who fell from a scaffolding and died soon after. The peritoneal cavity contained a large amount of blood and bile. There were other severe injuries.

977. Portion of a liver showing extreme fatty infiltration.

From a patient who died of phthisis.





978. Portion of a lardaceous liver. The organ weighed eight pounds twelve ounces.

From a man aged twenty-one who had syphilis.

979. A piece of a nutmeg liver showing discoloration of the central parts and fatty infiltration of the outer parts of the lobules.

980. Large solitary abscess of the liver occupying one-third of the right lobe. The abscess-wall was formed in part by the abdominal wall and diaphragm. There were small abscesses scattered throughout the organ.

From a man aged thirty who died of acute dysentery.—*P. M. Reports*, 1888, No. 185. Dr. PHILLIPS.

981. Pyæmic abscesses in the liver.

From a man aged fifty-four who died intensely jaundiced twelve days after amputation of a finger. Mr. COULSON.

982. Portion of a liver and the right bend of the colon. The latter is ulcerated, one of the ulcers is perforated opening into an abscess cavity in the liver. Dr. SIBSON.

983. Portion of liver from a case of acute yellow atrophy. The peritoneal surface is wrinkled. The cut surface shows areas in which the lobules are indistinguishable. Leucine was found in the recent state and after the specimen had been for some time in spirit, tyrosine crystals were found in the hepatic veins.—*P. M. Reports*, xiii. 17. Dr. SIEVEKING.

984. Part of a liver and the gall-bladder, showing the results of obstruction of the cystic and common bile-ducts by a mass of cancerous glands. The gall-bladder, the right and left and intra-hepatic bile ducts are dilated. In the recent state they contained thin bile. The liver substance was deeply pigmented.

From a man who died comatose. He had been jaundiced over a year, and had cancer of the intestine.

985. A liver greatly diminished in size from atrophic cirrhosis. The surface is hob-nailed. The organ weighed eighteen and a half ounces, and was of a bright yellow colour.

From a woman who first had ascites seven years before she died. From that time though she abstained from alcohol her disease continued to progress.—*P. M. Reports*, 1888. 42. Dr. LEES.

986. Part of a liver showing atrophic cirrhosis, injected from the portal vein, which presents great thickening of its branches.

From a woman aged forty-five, who died of ascites and general dropsy, and who had also granular kidneys. Dr. HANDFIELD-JONES.

987. A portion of liver showing a layer of inflammatory membrane partly stripped from its upper surface.

988. A portion of liver showing miliary tubercles beneath the capsule.

From a child aged eight months who died from general tuberculosis.

Dr. HANDFIELD-JONES.

989. A portion of a liver showing a nodule of tubercle beneath the peritoneum.

Dr. HANDFIELD-JONES

990. A portion of liver with masses of tubercle.

From a youth of sixteen who had tubercle of the intestine, liver, kidneys, (No. 1178), and amyloid disease of the viscera.

Dr. CHEADLE.

991. Part of a syphilitic liver showing a softened gumma, scars, and general induration.

From a patient who had tertiary syphilis and jaundice, and who died at the Lock Hospital.

Dr. PHILLIPS.

992. Gummata of the liver.

From a man who died of inflammation of the lungs, due to syphilitic ulceration of the trachea and bronchi.—*P. M. Reports*, xxiv. 133.

Dr. BROADBENT.

993. Gummata in the liver.

From a man aged twenty-nine who died of gumma of the brain.—*P. M. Reports*, xix. 39.

Dr. SIEVEKING.

994. A child's liver containing gummata, many of which cause prominences on the surface of the organ. Where the gummata have been incised, they are seen to be occupied by a scar in the centre. On the surface they were umbilicated. The microscope shows a zone of granulation tissue surrounding a mass of structureless granular matter, held together by fibrous bands.

From a male child aged one year and seven months. In life a hard tumour was felt continuous with and below the liver. The abdomen was tender. The child died of diarrhœa.—*P. M. Reports*, 1891. 124.

995. Part of a liver with a hydatid cyst, which presents a rent at one part.

From a man who died after receiving a blow on the abdomen. Mr. S. LANE.

996. Hydatid cyst attached to the under surface of the liver. The cyst was adherent to the stomach and the pancreas.

From a man aged thirty-six who died of phthisis.—*P. M. Reports*, 1883.

Dr. HANDFIELD-JONES.

997. Portion of the liver with two large hydatid cysts, occupying nearly the whole of the right lobe. Both cysts contained folded membrane, and the larger, some bile.

From a woman who died of bronchitis and abscess of the spleen.

998. A portion of liver with multiple hydatid cysts. The cysts are nowhere widely separated. The specimen may be an example of *echinococcus multilocularis*.

Mr. S. LANE.

999. Multiple hydatid cysts in the liver. The parasites have fallen away.

From a man aged twenty-three who for three years had had lumps in the belly, and who was admitted with jaundice and fever. He died of exhaustion a fortnight later. The liver contained eight large and numerous smaller cysts. On the right side the diaphragm was pushed up to the second intercostal space. There was also a sloughing abscess involving the diaphragm, spleen, and left lung.

Sir EDWARD SIEVEKING.







1000. A calcified hydatid cyst in a portion of the right lobe of the liver.

Taken from the body of a man admitted with ascites and wasting. There was a history of rheumatism and it was thought that a presystolic murmur could be heard at times. The abdomen was tapped frequently. The patient died extremely emaciated. The cyst, which contained a purulent fluid in which hooklets were found, pressed upon the vena cava.

Dr. LEES.

1001. Cavernous angioma. Part of a liver, injected, showing a cavernous tumour opened. The organ contained many similar growths, some of which formed projections on the surface. They were easily injected from the portal vein, but appeared to be independent of the hepatic artery.

Similar growths were found in the ovaries and suprarenals, and the patient, a woman of twenty-five, died of hæmorrhage from a uterine polyp, probably of the same nature.—*Path. Trans.* xx. p. 203.

Dr. PAYNE.

1002. An infant's liver with the umbilicus showing suppurative thrombosis of the umbilical and portal veins.

The child died a few days after birth. The mother said of "convulsious." There were lesions due to septicæmia.—*P. M. Reports*, Sept. 17, 1891.

1003. Part of a liver affected with primary cancer. The capsule is thickened and a little of the unaffected liver is seen at the upper part of the specimen, the rest being replaced by soft new growth. The microscope shows a close mimicry of liver structure, bands of clear nucleated cancer cells being separated by vascular channels lined by endothelium. The remains of the liver are cirrhotic.

From a man aged forty.—*P. M. Reports*, 1889. No. 29.

Dr. CHEADLE.

1004. Portion of liver showing a nodule of cancer secondary to cancer of the testis.

Dr. CHAMBERS.

1005. Portion of liver with masses of cancer secondary to cancer of the intestine.

Dr. RANDALL.

1006. Portions of liver with umbilicated nodules of cancer.

1007. Cancerous nodules in a portion of liver.

From a man who had cancer of the sigmoid flexure.

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1008. Cancer nodules in a part of a liver secondary to epithelioma of the rectum.

1009. Portion of a liver showing nodules of cancer secondary to cancer of the pylorus.

Dr. CHAMBERS.

1010. Portion of a liver with the gall-bladder. The walls of the latter are thickened by cancerous infiltration.

From a woman of twenty-eight, who had cancer of the pylorus, the liver, and peritoneum.

Mr. URE.

1011. Part of a liver with a dilated gall-bladder. Masses of growth project into the latter and infiltrate the liver.

From a middle-aged woman who died of a large mixed-celled sarcoma affecting the liver and great omentum.

Dr. LEES.

1012. Distended gall-bladder. The cystic duct is blocked by a stone.

1013. Portion of liver with gall-bladder and ducts. The gall-bladder contains eleven facettèd stones but no bile. The cystic duct is blocked at the beginning by a calculus. The hepatic duct is dilated.

From a man who had no hepatic symptoms.

Dr. CHAMBERS.

1014. Portion of liver with the gall-bladder. The latter is thickened and contains several calculi. Nodules of small-celled sarcoma spring from both liver and gall-bladder.

From a woman aged thirty-three. She had jaundice on two occasions, and died of sarcoma of the peritoneum.—*P.M. Reports*, 1883, 148.

Dr. MEADOWS.

1015. Portion of a liver with the gall-bladder, showing a calculus impacted at the duodenal extremity of the common bile-duct.

From a woman aged twenty-six who had paroxysmal pain followed by jaundice. During the attacks of pain the patient often fainted and had severe epistaxis. The patient died intensely jaundiced after six weeks' illness, having refused to undergo operation which was advised.

Dr. HANDFIELD-JONES.

1016. A gall-bladder containing a deposit of carbonate of lime. The microscope shows it to be crystallised in circular plates. In the recent state the deposit blocked the neck and encrusted the lining of the gall-bladder, which contained no bile.

From a woman aged thirty-seven who had leucocythamia, cirrhosis of the liver, and ascites.—*Path. Trans.* vol. vii.

Dr. MURCHISON.

1017. Part of a liver with the gall-bladder and ducts. The gall-bladder is filled with calculi, one of which has caused ulceration. The cystic duct is narrowed.

From a man aged eighty-two, who died of cancer of the cæcum. The gall-stone projected into a cavity which contained bile-stained matter and which was shut off by adhesions from the peritoneal space. The patient cut his throat on account of the pain.

Mr. NORTON.

1018. Part of the liver and gall-bladder. The latter contains calculi, which by their irritation have caused cancer. The bile ducts are dilated and filled with pus.

1019. Part of the upper surface of a liver.

From a body which was exhumed two months after burial. The white patches show under the microscope bundles of acicular crystals and globules of fat.

Mr. PEPPER.

1020. Cancer (secondary) of the gall-bladder, which is distended and thickened.

1021. Epithelioma of the gall-bladder, causing perforation.

From an old lady who died of peritonitis.

Mr. RAYLEY OWEN.

1022. A pancreas adherent to a small spleen. The microscope shows an increase of fibrous interstitial tissue in the pancreas.

From a woman aged forty-six, who died of goitre and who had contracted granular kidneys.





1023. Pyloric end of stomach, duodenum, and pancreas. The latter is atrophied, and the microscope shows it to be devoid of gland elements except at its extremities.

From a woman aged forty-two, who had suffered from pain in the epigastrium, diarrhoea, and vomiting for nine years, when she came into the hospital. She had pain in the back. Her complexion was yellowish and her motions fatty and clay-coloured. The symptoms ceased for a time and then recurred. Ultimately convulsions set in, followed by paralysis and death one and a half years after. The urine contained sugar.—*P.M. Reports*, v. 707.

Dr. SIBSON.

1024. Pancreas with part of the duodenum. The head of the pancreas is occupied by a firm growth as large as a Tangerine orange. The microscope shows a cancerous growth, mimicking the pancreas in structure.

From an emaciated man aged fifty-five, who had pain, vomiting, and constipation, and in whom a lump could be felt between the epigastric and umbilical regions. He died four days after exploratory abdominal section had been performed. The stomach was dilated, and the intestines contracted.—*Clin. Notes*, April 22, 1890. No. 80.

Dr. LEES.

## SERIES XVII.—AFFECTIONS OF THE THYROID AND THYMUS GLANDS.

1025. Hypertrophy of the thyroid and thymus glands. The latter weighed two ounces and a half, and consists of a central and two lateral lobes. The microscope shows a great increase in the interstitial tissue in the thyroid. The individual acini are also greatly increased in size, but without colloid secretion. There are collections of small round cells at intervals in the interstitial tissue. The thymus has normal histological characters.

From a woman aged twenty-six, who died of pneumonia. The body had a very masculine appearance.

Dr. ALDERSON.

1026. A goître. All parts of the thyroid gland are increased in size. The enlargement is due to distension of the acini of the gland with excess of the colloid secretion, which, in moderate amount, is found normally after middle age. This constitutes the colloid variety of hypertrophic goître. Below the isthmus is a cyst, which contained caseous matter.

From a woman aged forty-seven, who died of pyæmia after herniotomy.—*P. M. Reports*, xxiv. 100.

1027. Trachea, &c., with part of a hypertrophic goître, of which the arteries are injected. The internal jugular vein is thrombosed. The greater part of the hypertrophied gland is of the colloid variety, but in the central part there is but little secretion in the follicles which are crowded together, and give a homogeneous look to the central part of the thyroid, constituting glandular goître.

From a patient who had great dyspnœa. This had often been relieved by phlebotomy of the dilated veins over the tumour. He died in an attack of dyspnœa.

Mr. LANE.

1028. Encapsuled growth (adenoma) of the thyroid gland. The capsule is fibrous, and adjacent to it, embedded in fibrous tissue continuous with it, are numerous gland-follicles. Further inwards the follicles are pressed into irregular forms, some containing colloid matter, others empty. The white bands seen in the specimen consist of colloid matter, resulting from the fusion of the distended follicles, whose epithelium is completely disintegrated, with the stroma and blood-vessels which have also undergone colloid degeneration. The red areas consist of dilated blood-vessels and connective tissue infiltrated with extravasated blood, and a few atrophied follicles which are difficult to find, and some of which are converted into blood-cysts by hæmorrhage having taken place into them. Small masses of hæmatoidin are found in all parts of the tumour.

Removed from a man aged thirty-six who recovered rapidly from the operation. The growth appears to have arisen in an accessory thyroid as it had no attachment to the main part of the gland. The trachea was pushed over to the right side and there was marked dyspnoea with stridor. A lump had been present from childhood and had increased steadily in size.

Mr. PEPPER.

1029. The two lobes of a thyroid gland. The lower (right) lobe is occupied by a glandular adenoma, traversed by fibrous and cartilaginous bands. The upper part of the specimen comprises the right and middle lobes, and shows several colloid adenomata, the largest of which is intersected by calcified bands.

Removed from a boy of seventeen who recovered rapidly from the operation.

Mr. OWEN.

1030. Trachea, &c., with an enlarged thyroid. The lateral lobes nearly meet behind the trachea, compressing the œsophagus. The middle lobe is considerably enlarged. The microscope shows increase of the interstitial tissue and proliferation of epithelium in the acini, which contain no colloid secretion.

From a woman aged thirty who died of pneumonia after epidemic influenza. She had well-marked symptoms of exophthalmic goitre which had greatly improved when she died.

Dr. BROADBENT.

1031. A cystic adenoma arising in the isthmus of thyroid gland. The capsule of the largest cyst is very thin. The contents were a red thick semi-fluid substance. A microscopic section through the growth shows from without in: (a) a thick fibrous capsule; (b) glandular tissue differing from the normal thyroid in having more interstitial fibrous tissue which contains scattered through it large round cells, and in having many acini enlarged and entirely occupied by cells; (c) cysts, some containing colloid substance, and some altered blood.

From a woman aged forty-five who died of phthisis.

Dr. ALDERSON.

1032. Goitre. The lateral lobes of the thyroid are enlarged, the right lobe contains cysts, the larger of which are surrounded by fibrous capsules. The left lobe contains several adenomata.

Removed after death from a patient who died of cancer of the uterus.

Dr. CHAMBERS.









1033. The right lobe of the thyroid greatly enlarged by adenomatous growths.

Removed from a man aged fifty-four on account of the difficulty of respiration and deglutition. Four and a half years before operation the patient had noticed a swelling as big as the thumb. At the time of the operation the tumour extended from the jaw to the clavicle. The patient died of bronchitis three days after the operation.

MR. LANE.

1034. A goître, the greater part of which has the characters of a colloid hypertrophy, but in places, especially in the right (upper) lobe, there are encapsuled new-growths (adenomata). One of the latter forms a projection from the surface, and had, like some of the deeper adenomata, a homogeneous-looking section, and shows under the microscope wide areas composed of epithelial cells, in which the arrangement in acini is almost lost. This structure points to rapid proliferation, and possibly the beginning of cancer.

Removed from a man aged fifty who had noticed the enlargement for twenty years. In the last few months it had grown very rapidly. The patient was admitted with great dyspnœa and dysphagia. The lobes were removed separately and the patient rapidly recovered.

MR. PEPPER.

1035. Cancer of the thyroid gland. The growth has no capsule and infiltrates neighbouring parts. The right carotid artery and internal jugular vein are widely separated, and, with the vagus nerve, are stretched over and partly involved in the growth. In the recent state, the right lobe measured twelve inches in circumference. The microscope shows a spheroidal-celled cancer, with large alveoli bounded by fibrous walls.

From a patient who died of suffocation.

MR. URE.

#### SERIES XVIII.—AFFECTIONS OF THE SPLEEN.

1036. Spleen and splenculus from the same individual. They are both ruptured.

From a girl aged twelve, who was run over by a cart-wheel. The spleen was torn away from its attachments, and, together with the left kidney and part of the stomach, was displaced into the left pleural cavity through a rent in the diaphragm.

*P. M. Reports*, 1890. No. 121.

MR. PAGE.

1037. A ruptured spleen. The organ is completely divided into two parts.

From a boy, who died a few hours after being caught up in some machinery.

1038. A spleen studded with abscesses, due to pyæmia.

From a woman who had suppurating hydatids of the liver and broncho-pneumonia.

1039. Sago spleen. The Malpighian bodies are altered by amyloid degeneration.

From a patient who died of cancer of the ovary, involving the rectum and vagina.

DR. BROADBENT.

1040. A spleen containing one large and several small infarcts, and, below, a stenosed mitral valve bearing vegetations and fibrinous deposits. The large infarct is of older date than the others, and is softened and surrounded by a fibrous capsule. The smaller ones are firm, and surrounded by a zone of hyperæmic tissue.

From a patient who died from the effects of embolism of both middle cerebral arteries. The radial arteries were also plugged, and there was embolism of the lungs and kidneys. The infarcts in the lungs were of a pink colour, bordered with red.—  
*P. M. Reports*, xiii. 119. Dr. BROADBENT.

1041. A spleen considerably enlarged and containing an abscess cavity, due to a septic infarct.

From a man aged sixty, who died of ulcerative endocarditis.

Dr. HANDFIELD-JONES.

1042. Enlarged spleen containing a cyst.

From the dissecting-room.

1043. Part of a spleen enlarged and mottled with yellow and pink deposits.

From a boy aged ten, who had lymphadenoma and died of pulmonary phthisis. —  
*P. M. Reports*, xi. 196. Sir EDWARD SIEVEKING.

1044. Part of a spleen from a case of lymphadenoma. Some enlarged lymphatic glands adhere to the hilus of the organ.

1045. Half of a spleen greatly enlarged and containing a cyst. From a case of leucocythemia.

1046. A spleen from a case of leucocythemia. A splenculus is attached to the lower end of the organ.

1047. Part of a spleen containing a hydatid cyst which is undergoing calcification.



## SERIES XIX.—AFFECTIONS OF THE SUPRARENAL BODIES.

1048. Symmetrical hypertrophy of both suprarenal bodies. The microscope shows an increase in both glandular and interstitial elements. The succession of layers from the capsule to the medulla is unchanged.

From a man aged thirty-eight, who died of generalised sarcoma.

1049. Two suprarenal bodies showing caseation due to tubercle.

From a woman who died of chorea, and who had been bronzed for some months. Dr. CHAMBERS.

1050. A suprarenal body of the right side, greatly enlarged by caseous tubercle.

From a man aged thirty-two who for six months had been bronzed and had pains in the limbs, weakness and vomiting. Delirium set in ten days before death.

Sir EDWARD SIEVEKING.





1051. The left suprarenal with the uppermost part of the corresponding kidney.

The specimen shows tuberculosis of the suprarenal capsule extending directly to the kidney. Dr. CHEADLE.

1052. Tuberculosis of both suprarenal capsules and of the left kidney.

From a man aged twenty-seven who died of syncope after suffering from symptoms of Addison's disease for nine months.—*P.M. Reports*, 201. 1888. Dr. CHEADLE.

1053. A left suprarenal body affected with cancer. In the fresh state the growth was soft and creamy.

From an old woman who had cancer of the lung, kidney, and spinal column. There were no symptoms of Addison's disease.

1054. Cavernous growth (angioma) of the left suprarenal body. The growth was easily injected from the renal artery. (*See* No. 1000). Dr. PAYNE.

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## SERIES XX.—DISEASES OF THE RESPIRATORY TRACT.

1055. The nasal fossæ showing necrosis of the fore-part of the septum.

From a negress aged twenty-one who died of septicæmia following symptoms of acute rhinitis. Dr. THUDICUM.

1056. Nasal mucous polyp removed from over the inferior turbinated bone.

Mr. SPENCER SMITH.

1057. A section through the fore-part of a head, shewing growths involving the naso-pharynx, nasal-fossæ, air-sinuses, orbits, brain, &c. The face presents in the orbital region a prominence as large as a man's fist, due to exuberant growth pushing forward and infiltrating the eye-ball and the skin. The latter is nodular at one part. The section shows that the base of the skull and the frontal-bone are increased to an average thickness of two inches. Attached to the bones is a mass of growth which fills the naso-pharynx, and the nasal cavity, and projects beneath the skin of the forehead on the one hand, and on the other extends into the anterior fossa of the cranial cavity as a spongy mass which invades and infiltrates the frontal lobe of the left hemisphere. The remainder of the brain was displaced and had caused expansion and thinning of the bones forming the skull-cap. The microscope shows the growth to be a squamous epithelioma.

From a man aged twenty-seven. At the age of fifteen he presented himself at Moorfields on account of bulging of the left eye. Eleven years afterwards Mr. Silcock discovered the patient still alive, but in a comatose state, at the Whitechapel Infirmary. Mr. SILCOCK.

1058. The section corresponding to No. 1057, showing the distortion of the face; and the left parietal bone, which is thinned and expanded from the pressure exerted on it by the brain.

Mr. SHILCOCK.

1059. A larynx showing ulceration of the epiglottis from a patient who died of pyæmia, after removal of the tongue for cancer.

Mr. LANE.

1060. A larynx, &c., showing complete destruction of the epiglottis, due to syphilis.

Mr. S. LANE.

1061. A large piece of beef impacted at the lower end of the larynx, and completely occluding the larynx.

It caused death of a man by asphyxia.

1062. A piece of bone impacted in the larynx. The bone is fixed in the antero-posterior position, and projects between the vocal cords.

From a child aged two years. Tracheotomy was done. The child died of pulmonary collapse and insufflation and bronchitis.

Dr. CHEADLE.

1063. Larynx and trachea with an angular piece of nut-shell lodged above a tracheotomy wound.

From a boy who had no symptoms for five days after the entrance of the body, then spasmodic cough and dyspnoea set in, and on the tenth day he died while tracheotomy was being performed. The trachea and bronchi contained some blood. The upper parts of the lungs were insufflated and the lower lobes were congested.—*P.M. Reports*, iii. 387.

Mr. S. LANE.

1064. Larynx, &c., with a steel screw, the head of which was fixed in the mucous membrane immediately below the true cords.

From a child aged one year who was brought in dead.

1065. A fish-bone lodged in the larynx of a child seventeen months old.

Urgent dyspnoea occurred on the seventh day after the entrance of the body and tracheotomy was performed. Several attempts were made to find the body from the wound but to no purpose. On the second day a rash resembling scarlet-fever appeared, and was followed by cellulitis of the left arm and inflammation of the left ankle-joint. The child died of pyæmia.

Mr. OWEN.

1066. A part of a crab's claw impacted in the right bronchus.

From a boy aged five who inhaled the body as he was sucking it. It caused at once intense dyspnoea. Tracheotomy was performed immediately but the foreign body was not found. Death took place three days later from pneumonia.

1067. The lungs and air passages of a child of eighteen months showing a pea lodged in the right bronchus.

Tracheotomy was performed but the attempt to remove the foreign body was unsuccessful. Death was due to broncho-pneumonia.—*P. M. Reports*, 1888, No. 181.

Mr. OWEN.







1068. A larynx showing ulcers leading to necrosed portions of the arytaenoid and cricoid cartilages.

From a woman who had been in the hospital with symptoms of acute laryngitis. Tracheotomy was required and the patient recovered sufficiently to leave the hospital. A short time afterwards sudden and fatal dyspnœa came on. MARSH.

1069. A larynx, showing the effects of laryngitis. The epiglottis is covered with brownish lymph.

From a boy of two years and a half who swallowed a piece of hot potato.

1070. Trachea and larynx lined by diphtheritic membrane.

From a child aged three on whom tracheotomy was performed. Death occurred a few hours afterwards.—*P. M. Reports*, xv. 85. Sir EDWARD SIEVEKING.

1071. Trachea and larynx lined by diphtheritic membrane.

From a child aged eight who died nine days after the appearance of symptoms.—*P. M. Reports*, xii. 65. Dr. HANDFIELD-JONES.

1072. The arches of the palate, tonsils, epiglottis, and the larynx thickly coated with diphtheritic membrane.

From a patient aged twenty-two who died on the thirteenth day of the disease.—*P. M. Reports*, vi. 834. Dr. ALDERSON.

1073. Larynx, trachea, and bronchi, showing diphtheritic deposit extending from the vocal cords to the bifurcation of the trachea. The lungs were in a state of broncho-pneumonia.

From a woman aged fifty who died of dyspnœa after a week's illness.

Dr. BROADBENT.

1074. Larynx, &c., showing a sloughing condition of the laryngeal mucous membrane due to typhoid fever.

From a man aged forty-two who was admitted with a well marked typhoid eruption. He was in the hospital eighteen days. Towards the end dyspnœa set in and laryngotomy was performed. There was deep intestinal ulceration.

Dr. BROADBENT.

1075. Larynx and trachea. The epiglottis is partly destroyed by syphilitic ulceration, the mucous membrane is everywhere thickened.

From a middle-aged man who died from extension of the disease to the smaller bronchi. There were gummata in the liver.

Dr. BROADBENT.

1076. Larynx showing gummata of the true and false cords.

From a patient who was brought in dead. The glottis was occluded by the growths.

1077. Larynx, &c., showing the effects of syphilitic perichondritis. There are ulcers over the thyroid, arytaenoid and cricoid cartilages, parts of which are exposed and in a state of necrosis. The parts surrounding the ulcers are thickened. The mucous membrane is ulcerated from the epiglottis to the trachea.

From a man aged forty-two who died of dyspnœa. In the recent state the parts were very œdematous.

1078. A larynx showing ulceration. The arytaenoid cartilages are necrosed in the floor of the ulcers.

From a man aged fifty who died four years after infection with syphilis. He had rupial sores, pulmonary infarcts, and gangrene of the fingers.—*P.M. Reports*, 1882, 12.  
Dr. BROADBENT.

1079. A trachea showing an ulcer opening into the œsophagus.

From a man aged thirty who died of gangrene of the lung seven years after infection. There was a gumma in the testis.—*P. M. Reports*, xvi. 36. Dr. BROADBENT.

1080. Ulceration of the larynx and trachea just above the bifurcation.

From a patient who had tertiary syphilis. Mr. S. LANE.

1081. Larynx showing a swelling over the left and ulceration over the right arytaenoid cartilage. The microscope shows absence of tubercles. An example of decubital ulceration.

From a man aged thirty who died of chronic phthisis.—*P.M. Reports* xiii. 1887.  
Dr. CHEADLE.

1082. Larynx, &c., showing marked decubital ulceration.

From a man who had leucocythæmia. Signs of obstruction in the larynx appeared nine days before death. Tracheotomy was performed.  
Dr. HANDFIELD-JONES.

1083. Tubercular ulcers of the tongue, epiglottitis, and larynx.

From a man who died of tubercle of the lung. Dr. SIBSON

1084. Larynx and trachea showing tubercular ulceration. The upper rings of the trachea are necrosed on the right side.

From a man who died of tubercle of the lung.

1085. Tubercular ulceration of the larynx. There is swelling of both arytaeno-epiglottidian folds, both vocal cords are destroyed, and the cricoid cartilage is necrosed.

From a patient aged forty-eight on whom tracheotomy was performed for urgent dyspnoea and who died soon afterwards. He had extensive disease of the lungs.—*P.M. Reports*, 1882. No. 10.  
Mr. NORTON.

1086. Larynx, &c., showing ulceration over the opposed surfaces of the arytaenoid cartilages, of which the left is necrosed. The microscope shows the floor and sides of the ulcers to be formed of tubercular tissue.

From a man aged thirty-seven who died of tubercle of the lung.

#### GROWTHS OF THE LARYNX.

1087. A larynx showing papillomata of the vocal cords.

From a boy, who died of scarlet fever on the third day. The enlarged tonsils are gangrenous in the centre. The voice had been hoarse for some years.  
Dr. SAUNDERSON.

1088. A larynx showing a polypus attached to the left vocal cord.

From a man aged forty-four. Dr. LEES.





1089. A larynx showing an epithelioma which has destroyed the left vocal cord.

From a man aged fifty-three, who died while tracheotomy was being done. He had had symptoms for four months, when suddenly œdema set in.—*P. M. Reports*, xxi. 5. Mr. NORTON.

1090. A larynx showing epithelioma affecting the right side.

From a man who had soreness and hoarseness for fourteen months, and who died of asphyxia. He refused to be operated on. Sir EDWARD SIEVEKING.

1091. A larynx the seat of a soft cancer which pushes up the epiglottis and below reaches as far as the œsophagus. It occupies more than half the larynx, and projects into the pharynx.

The man died suddenly of asphyxia. There were similar growths in the lung. The microscope shows squamous epithelioma. Symptoms had been present for four years.—*P. M. Reports*, vi. 930. Dr. CHAMBERS.

1092. Larynx, &c., showing an epithelioma extending from the base of the epiglottis into the œsophagus. The right vocal cord has been destroyed, the left is infiltrated. The posterior part of the cricoid cartilage is infiltrated, and in part destroyed.

From a woman aged sixty. A year before death she had been treated for acute laryngitis. She died of broncho-pneumonia after bronchitis. Dr. BROADBENT.

1093. Larynx, with an epithelioma which covers both alæ of the thyroid cartilage.

#### AFFECTIONS OF THE TRACHEA.

1094. Larynx and trachea and part of œsophagus showing a wound traversing the upper part of the trachea and the œsophagus.

From a young woman who committed suicide with a pair of scissors.

1095. Larynx, trachea, &c. On the right side of the trachea is an elongated cavity with an aperture at its upper part. In the recent state this cavity was full of pus. All the tissues around the upper part of the trachea were infiltrated with purulent exudation. There is marked œdema glottidis.

From a man who had cellulitis of the neck. Laryngotomy was performed on account of dyspnœa. Dysphagia then set in and increased in severity, the patient dying of inanition. Mr. S. LANE.

1096. Trachea and neighbouring parts, showing stenosis of the trachea. The lower end of the narrowed part is situated one inch and a half above the bifurcation. The bronchial glands are enlarged. Immediately above the stenosed part are several depressions due to puckering, and lined by mucous membrane. A section through the stenosed part shows the mucous membrane to be unaffected, while external to the cartilages is a great quantity of cicatricial tissue. The condition is probably due to syphilis.

From a man aged twenty-seven, who died of bronchitis and pneumonia, due to tubercle.—*P. M. Reports*, vi. 851. Dr. CHAMBERS.

1097. Trachea, &c., showing a caseous bronchial gland adhering to, and threatening to rupture into, the trachea.

Dr. SIBSON.

1098. Trachea, &c., showing two ulcers corresponding to two carbon-loaded bronchial glands.

From a woman aged sixty-two, who died of cancer of the colon. The microscope shows that the glands are free from cancer.

\* Dr. CHIDDLE.

### AFFECTIONS OF THE BRONCHI.

1099. A fibrinous cast of the bronchi.

Coughed up by a patient after an attack of hæmoptysis and dyspnœa.

Dr. SIBSON.

1100. Cast of a bronchi coughed up by a patient who had plastic bronchitis.

1101. A portion of lung injected, showing bronchi lined by diphtheritic membrane.

From a woman aged twenty who died of asphyxia. The membrane extended from the trachea the small bronchi.—*P.M. Reports*, iv. No. 555.

Dr. SIBSON.

1102. Portion of lung, showing great dilatation of the bronchi, and thickening of their walls. The pulmonary tissue between the dilated tubes is collapsed.

From a child aged six who had chronic bronchitis and clubbing of fingers.—*P.M. Records*, 1883. No. 39.

Dr. HANDFIELD-JONES.

1104. Section through a lung and pleura, showing an empyæma. The pleura is everywhere greatly thickened. The upper lobe of the lung is solid, the lower is compressed and partly solidified. The bronchi are blocked with muco-pus.

The case began as acute pleuro-pneumonia.

1105. Part of a pleura, thickly coated with lymph, from a case of empyæma.

Dr. HANDFIELD-JONES.

1106. Lung and pleura, the latter coated with shaggy lymph.

From an empyæma due to pyæmia which followed a scalp wound.

1107. Part of a lung showing a thick layer of lymph on the pleura.

From a man who died early in an attack of pleuro-pneumonia and pericarditis.—

*P. M. Book* ii. 151.

Dr. CHAMBERS.

1108. Portions of lung and chest-wall showing long fibrous pleuritic adhesions.

1109. Part of a lung showing a cyst-like formation, with dense fibrous walls, resulting from a localised empyæma. There is a caseous mass in the apex.

From a man aged forty-two who died of Bright's disease.—*P.M. Reports*, v. 686.

Dr. ALDERSON.

1110. Part of a lung showing a pleural thickening, which has undergone calcification.

Mr. WILKINSON.







1111. A right lung with part of the diaphragm. The apex of the lung is full of tubercular masses which have not broken down. Beneath the visceral pleura are scattered tubercles, and in places the membrane is covered with lymph. The chief feature of the specimen is the greatly thickened parietal pleura, which forms a white tough membrane nearly a quarter of an inch thick. It separated easily from the ribs and intercostal muscles, but adhered closely to the diaphragm, through which tubercles have extended to the peritoneum.

From a man aged thirty-seven who died of epistaxis and had been in bed four months for dropsy. There were large white kidneys.—*P.M. Reports*, 1891. No. III.  
Dr. BROADBENT.

1112. Part of a lung showing nodules of cancer secondary to cancer of the breast.

Mr. S. LANE.

1113. Lung and pleura showing cancerous nodules in both layers of the latter. Some of the nodules are umbilicated. There were other growths in the peritoneum.

From a man aged seventy-five who for three months before death had pain in the back and abdomen.—*P.M. Reports*, xii. 124.  
Dr. BROADBENT.

#### AFFECTIONS OF THE LUNG.

1114. A portion of the anterior border of the right lung dried, showing an advanced state of vesicular emphysema.

Mr. SILCOCK.

1115. Part of a lung showing advanced vesicular emphysema. The cut surface shows large spaces separated by thin septa.

1116. A portion of lung showing interstitial emphysema. The escaped gas lies beneath the pleura in the interlobular septa.

From a child aged four who died of broncho-pneumonia due to influenza.—*P.M. Reports*, 1891.  
Dr. LEES.

1117. A portion of a lung in a state of red hepatisation due to acute lobar pneumonia.

From a patient who was brought in unconscious and who died soon afterwards.  
Dr. SIBSON.

1118. Part of a left lung wholly consolidated in a state of grey hepatisation.

From a woman aged twenty-one who died on the tenth day of illness. The sputa were green. There was pleural effusion on the right side.

1119. Portion of a right lung showing changes due to broncho-pneumonia. The bronchi contain muco-pus.

There are hæmorrhagic areas. The branches of the pulmonary vessels corresponding to these areas are thrombosed. From a patient who died of typhoid fever.  
Dr. SIBSON.

1120. A portion of lung containing caseous masses. The microscope shows the caseous areas to be due to broncho-pneumonic solidification. The outlines of alveoli, with thickened walls and fatty contents, are still traceable in the caseous patches. There are no tubercles.

1121. A portion of a lung, showing two large ragged cavities due to gangrene from pneumonia following chronic bronchitis. There are areas of grey hepatisation. The pleura is covered with recent lymph. The cavities were surrounded by firm adhesions. The microscope shows thickening of bronchi and interlobular septa, and in the grey areas alveoli filled with catarrhal and small round cells.

From a man aged sixty, who had gout and for nine months a cough. For the last three months the sputa were foetid.—*P.M. Reports*, v. 662. Dr. CHAMBERS.

1122. A portion of the lower lobe of a left lung showing a large ragged cavity, the result of gangrene caused by a septic embolus.

From a case of puerperal septicæmia.—*P.M. Reports*, vi. 868. Dr. CHAMBERS.

1123. A portion of lung showing a recent infarct.

From a patient who died of mitral stenosis.

1124. The left lung of a child thickly studded with small tubercles. There are recent pleuritic adhesions. The bronchial glands are beginning to caseate.

1125. A portion of a child's lung showing recent tubercles disseminated beneath the pleura.

This and the preceding specimen illustrate a condition to which the term military embolic tuberculosis has been applied. Mr. LANE.

1126. The apex of the left lung solidified by acute broncho-pneumonic tuberculosis. The bronchi are full of muco-pus, and a large part of the apex is in a state of grey hepatisation. The right lung had the apex studded with tubercles, and the base in a state of grey hepatisation. The microscope shows the solid part of the specimen to be devoid of tubercles, the alveoli being filled by small white and catarrhal cells.

From a man aged sixty-one.

Dr. SIBSON.

1127. A left lung with portions of ribs. The pleural cavity was obliterated. The whole lung is infiltrated with tubercle. The upper lobe contains a number of small cavities.

From a woman aged twenty-three.—*P. M. Reports*, iv. 572.

Dr. SIBSON.

1128. Part of a lung showing changes caused by broncho-pneumonic tuberculosis. The apex is solid throughout, and below this are patches of consolidation. The base is greatly congested. The pleura is thickened.

1129. A section of lung showing broncho-pneumonic tuberculosis in the last stage. The pleura and the peri-bronchial tissues are greatly thickened. In both upper and lower lobes are numerous cavities. The remaining lung-tissue is completely solidified.

Dr. ALDERSON.





1130. The remains of a left lung occupied by a large cavity traversed by bands. The other lung was in a similar condition, but not quite so far advanced. MARSH.
1131. The right lung with the first five ribs showing the results of chronic tuberculosis. There are two large cavities.
1133. Part of the left lung affected with tuberculosis. The pleura is a quarter of an inch thick, greatly indurated and in parts calcified.  
From a patient who had for many years had symptoms of phthisis, and who died greatly cyanosed in an attack of bronchitis due to a chill. Dr. SIBSON.
1134. A portion of lung showing changes due to broncho-pneumonic tubercle. The smaller divisions of the bronchi are filled with tubercular matter. There are several cavities. The pleura is covered by a thick layer of lymph. Dr. SIBSON.
1135. A part of the anterior border of a lung showing tubercular cavities in emphysematous lung-tissue.  
From a middle-aged patient. The greater part of both lungs was occupied by tubercular masses.
1136. A section of lung showing a tubercular cavity which contains an aneurism of a branch of the pulmonary artery. The aneurism had not ruptured.  
The patient died of asthenia. Dr. MAGUIRE.
1137. A portion of lung injected showing nodules of new growth, which the microscope shows to be small-celled sarcoma.  
Mr. S. LANE.
1138. A portion of a right lung showing a malignant growth spreading from the root of the lung into the middle lobe and invading the right auricle. There were subpleural nodules on the left lung and in the mesentery. The microscope shows the growth to be cancerous, resembling scirrhus of the breast.  
From a woman aged sixty-six who had cough for some years, and who died asphyxiated the day after lying-up for a fractured femur.
1139. A subpleural nodule of sarcoma from a patient aged thirty-eight, from whose thigh a rapidly-growing sarcoma was removed. The growth also recurred locally and in the spine.  
*P.M. Reports*, xxiii. 17. Mr. NORTON.
1140. Portions of lung and chest-wall, showing subpleural nodules of sarcoma.  
From a boy aged seventeen who died of the lung-affection three weeks after amputation at the hip had been performed for sarcoma of the femur. Mr. LANE.
1141. A portion of lung containing a nodule of melanotic sarcoma.
1142. A part of a lung containing a large mass of new growth which the microscope shows to be sarcoma.  
From a man aged thirty-five who died from the effects of a similar growth in the brain. There were no lung symptoms.—*P. M. Reports*, vii. 1022. Dr. SIBSON.

1143. A part of a lung, showing nodules of new growth, secondary to a small-celled sarcoma of the skull.

*P. M. Reports*, v. 741.

Mr. HAYNES WALTON.

1144. The right lung of a dog containing an encapsuled new growth which the microscope shows to consist of small alveoli lined with a single layer of columnar cells, surrounding a lumen. Probably an adenoma of the lung.

From an old foxhound which died greatly emaciated.

Dr. SIBSON.

1145. Part of the lower lobe of a lung containing a hydatid cyst. The pleura is covered with lymph, and there are areas of consolidation in the lung.

#### AFFECTIONS OF THE BRONCHIAL LYMPHATIC GLANDS.

1146. Part of the trachea and bronchi. There is in the right side of the larynx an aperture which leads to an abscess cavity. The mucous membrane is congested above the aperture and anæmic below it.

From a child who died immediately after taking a dose of medicine. The parents thought death might have been due to the medicine, but the autopsy showed that a suppurating bronchial gland had ulcerated into the trachea, which was blocked at its lower end by caseous matter.

Mr. PEPPER.

1147. Superior vena cava and adjacent parts showing in the vena cava an opening which leads to a cavity formed by the suppuration of a bronchial gland.

From a man of thirty-one who died of pyæmia. There was thrombosis of the left jugular and innominate veins, and pus in one knee.—*P. M. Reports*, xii. 10.

Dr. SIBSON.

1148. The bifurcation of the trachea and aorta and neighbouring parts, including a calcified bronchial lymphatic gland, of which the capsule has been incised, showing calcareous matter in front, and behind, a small cavity containing clot and opening into both the right bronchus and the aorta.

From a man aged twenty-seven who three-and-a-half years before death had evidence of a mediastinal abscess and coughed up one drachm of curdy pus. The symptoms passed off but left a slight persistent stridor. Fifteen months before death he had sudden profuse hæmoptysis which recurred from time to time. The physical signs were those of consolidation of the right apex. Death was due to cerebral thrombosis caused by anæmia. The lungs were perfectly healthy. The calcareous matter consists of carbonate and phosphate of lime.

Dr. PHILLIPS.

1149. Bronchial lymph-glands enlarged by lymphadenoma. The abdominal lymphatic glands were similarly affected.

From a boy aged ten.—*P. M. Reports*, xi. 196.

Dr. SIEVEKING.







## SERIES XXI.—AFFECTIONS OF THE KIDNEYS AND URETERS.

1150. Two kidneys. The left is in a rudimentary state, the right is hypertrophied.

From a man aged seventy who died of bronchitis and emphysema. The right kidney is indurated from chronic congestion. Dr. BROADBENT.

1151. Horse-shoe kidney, the commonest form of fusion of the kidneys. The organs are joined together at the lower end which lies in front of the aorta and vena cava. The ureters come off from the anterior aspect.

1152. A horse-shoe kidney with a double ureter on the left side.

Dr. SIBSON.

1153. Complete fusion of the kidneys. The single kidney lay on the left side and reached from the eleventh dorsal to the fourth lumbar vertebra. There are two ureters which entered the bladder in the usual way, the upper one going to the left side. There are three sets of vessels.

From a male subject.

Dr. LEES.

1154. A left kidney which was placed between the common iliac arteries. Branches of these and of the abdominal aorta supply the kidney.

Dr. HILL.

1155. A right kidney with a second artery entering its lower end and coming from the aorta.

## INJURIES OF THE KIDNEYS.

1156. A kidney with the perinephritic tissues cut in two. The kidney is seen to be divided into an upper and a lower portion, a large clot occupying the intervening space. Hæmorrhage has also taken place in the perinephritic tissues.

From a man aged twenty-one. He was thrown from the driver's seat of a cab, and was brought to the hospital unconscious. On regaining consciousness he vomited several times and complained of pains in the loins. He lived thirty-one days with profuse hæmaturia. In the last week the temperature rose at night. He died of hæmorrhage. After death the retro-peritoneal tissues were found to be full of extravasated blood.

Mr. HAYNES WALTON.

1157. A kidney with slight laceration of the cortex. The renal pelvis contained a clot. The middle part of the organ was swollen and indurated.

From a youth aged seventeen who died a few hours after being caught up by some machinery. See Nos. 149, 177, 693.

## INFLAMMATORY AFFECTIONS.

1158. A large white kidney injected. The cortex is greatly and uniformly increased in amount. Under the microscope the afferent arterioles of the glomeruli show the lardaceous change, and in some of the convoluted tubes large hyaline casts can be seen. The epithelium of the convoluted tubes is altered, the cells being of a flattened form. The increased amount of the interstitial tissues is due to the accumulation of small cells of inflammatory nature.

From a man aged twenty-three, who had cavities in both lungs and a lardaceous spleen, and who died of general dropsy.

1159. A contracted granular kidney, which when fresh weighed one ounce and a half. The cortex is greatly diminished in amount. The other kidney was in a similar condition. The microscope shows a great deal of fibrous tissue in the cortex, chiefly about the interlobular arteries. Many of the glomeruli are reduced to fibrous nodules, others are distended into cysts.

From a woman aged twenty-six who died in epileptiform convulsions. There was no dropsy and no marked hypertrophy of the heart. The patient had bronchitis.

Dr. SIBSON.

1160. A contracted granular kidney. The renal vessels are greatly diminished in size.

1161. Two greatly contracted kidneys. In the recent state they weighed together one ounce and a half. The cortex has almost disappeared, the pyramids still remain. There is a cyst in the left.

From a pale thin woman of twenty-eight who died in uræmic convulsions after suffering for a long time from uncontrollable vomiting.

Dr. ALDERSON.

1162. Two contracted granular kidneys containing many cysts.

Mr. FRYER.

1163. Two contracted granular kidneys containing cysts. The capsules are thickened and adherent.

1164. Two kidneys showing an opaque white appearance of the cortex due to fatty degeneration. The capsules were abnormally adherent. The microscope shows advanced fatty change in the epithelium of the convoluted tubules, some of which contain fatty casts. The fatty change has only slightly affected the medullary portion.

From a girl who had been in the hospital with acute Bright's disease two years before her death, which was due to epistaxis and metrorrhagia.—*P.M. Reports*, 1890. p. 202.

Dr. LEES.

1165. Cystic kidney from a foetus. The other kidney was in a similar condition. There was double talipes and supernumerary digits on both hands. The ureters were normal. The cysts are lined with a single layer of epithelium.





1166. A cystic kidney measuring eight inches by four. The cysts contained curdy matter of various colours. The pelvis is dilated, the ureter normal. In the intercystic tissue, the microscope shows remains of tubules, some of which present dilatations. The cysts are lined by a single layer of flattened epithelium. An example of conglomerate cystic kidneys.

From a woman aged forty who had many children, and who thought herself well to within a few days of her death, which was due to uræmia. The other kidney was in a similar condition. There were also cysts in the liver.

THE ÆSCULAPIAN SOCIETY

1167. A large cystic kidney (conglomerate). The cavities vary in size from a pea to a pigeon's egg. In the recent state the cysts were filled with matter varying in the consistence from that of jelly to that of coffee-grounds.

From a man aged forty-eight who died of cerebral apoplexy. The heart was greatly hypertrophied. The other kidney resembled the one preserved. Up to the time of the seizure he was not known to be ill.

Dr. CHAMBERS.

1168. A kidney of a boy who died of purpura, with hæmaturia. The mucous membrane is ecchymosed.

#### AFFECTIONS OF THE KIDNEYS SECONDARY TO AFFECTIONS OF THE URINARY PASSAGES.

1169. A right kidney containing numerous small abscess-cavities. There was a large abscess behind the kidney, separated from it by fat. It extended from the diaphragm to Poupart's ligament, disorganising the psoas and the iliacus. The ureter lay on the front of the abscess cavity. A second abscess lay close to the kidney and communicated with the small abscess within the organ. There were abscesses in the left kidney.

From a man who died in a "typhoid" state after being treated for six months for stricture of the urethra. The stricture admitted a No. 3 catheter. There was a false passage. Two months before death painful swellings appeared on each side of the umbilicus. The left disappeared whilst the right increased in size. The patient died comatose. The urine was clear and dark-coloured. The microscope shows the result of general interstitial nephritis with abscesses.

Dr. ALDERSON.

1170. Half of a foetal kidney showing congenital hydronephrosis.

NORTH COLLECTION.

1171. The kidneys, ureters, and bladder of a child. The left kidney shows hydronephrosis. The corresponding ureter is dilated, except at two points, where it is contracted. The constrictions are probably congenital and have caused the hydronephrosis.

NORTH COLLECTION.

1172. Hydronephrosis due to stricture of the urethra. The stricture just admits the glass rod placed in it. There is a false passage. The prostatic urethra is distended and its mucous membrane pouched from pressure. The muscular coats of the

bladder are hypertrophied, the uterus, the kidneys and their pelves are in a state of hydronephrosis. The cortex contains cysts, and the capsule is adherent, owing to interstitial nephritis.

Mr. LANE.

1173. A kidney showing advanced hydronephrosis due to a mass of cancerous glands which surround the ureter. Dr. HANDFIELD-JONES.

1174. A right ureter and kidney. The vesical orifice of the ureter was closed and puckered, and contained horny-looking scales. There was no calculus. The left ureter also was dilated.

Dr. SIBSON.

1175. A right kidney showing advanced hydronephrosis. The substance of the organ in some parts is thinned to a membranous consistence. The condition was set up by tubercular glands pressing on the ureter.

At the time of death the glands had diminished in size and the ureter had regained its perviousity.

Dr. HANDFIELD-JONES.

1176. A pyonephrotic kidney, dried. There is a kink where the pelvis of the organ joins the ureter.

1177. The kidneys and urinary passages of an old man. The right kidney is hyonephrotic, the left is hypertrophied, and contains a phosphatic calculus. The bladder is hypertrophied and its mucous membrane ulcerated. It contains a phosphatic calculus. The urethra is dilated and the membranous part is ulcerated.

From a man aged sixty who came in for retention of urine. He was found to have phimosis which he said was congenital, and within the prepuce were two flattened calculi which acted as a ball-valve and caused the retention which was removed by circumcision, but the patient died from surgical kidney. See No. 1562.

Mr. PAGE.

1178. A kidney showing a single tubercular patch at its lower end.

From a youth of sixteen, who had also tubercle of the intestine and of the liver and amyloid disease of the viscera. See No. 990.

Dr. CHEADLE.

1179. A kidney showing tubercular ulceration of the pelvis and the pelvic surface of the pyramids, constituting scrophulous kidney. The thick false membrane consists of tubercular matter with remains of the original tissue and is separated in some parts, leaving a granular surface. The kidney is greatly increased in size. Most of the gland substance has been destroyed, the remains of the cortex is fibrous from chronic inflammation.

Mr. S. LANE.

1180. A kidney affected with tubercular pyelonephritis. The organ has been injected and the vascular remains of the kidney look red in contrast with the grey tubercular matter. The large cavities result from the destruction of the organ from the papillæ to the cortex. Separate nodules of tubercular growth are seen in the septa between the cavities and on the outer surface. At one spot the capsule of the kidney has been destroyed by extension of the disease into the perinephritic tissues.

Mr. S. LANE.







1181. A kidney affected with tubercular pyelonephritis. The membrane lining the cavities is granular. The remains of the kidney substance is thin. The capsule is thickened and adherent.

MR. S. LANE.

1182. A kidney converted into a cicatricial mass by tubercular disease. The ureter is plugged.

MR. J. LANE.

1183. A tubercular kidney. The gland has been destroyed by the tubercular process which has been arrested at the cortex. The tubercular matter has undergone caseation. The ureter was plugged with caseous matter.

Removed from a man aged forty-two who was killed in an accident. The other viscera were normal.

1184. The genito-urinary organs of a young man affected with tuberculosis. In the kidney the tubercles are situated chiefly in the mucous membrane of the pelvis, the ureter is also affected. In the bladder ragged tubercular ulcers are situated about the orifices of the ureters and scattered over the fundus. The right epididymis is caseous. Both vesiculæ seminales are greatly distended. The middle lobe of the prostate is enlarged from tubercular infiltration.

The patient a man of twenty suffered from general tuberculosis and retention of urine. An attempt was made to puncture the bladder from the rectum, but the trochar passed into the peritoneal cavity.

DR. CHEADLE.

#### CALCULOUS DISEASE.

1185. A left ureter greatly dilated and part of the bladder. A calculus firmly impacted blocks the lower end of the ureter which at this part is surrounded by inflammatory tissue. The bladder especially around the orifice of the ureter presents numerous small elevations which in the fresh state were seen to be vesicles. The microscope shows them to be due to collections of albuminous fluid between the strata of the epithelium. Probably the condition is herpes due to reflex irritation.

From a man of twenty-five on whom nephrotomy was done eighteen months before death for constant pain and discharge of pus in the urine. The pelvis was found to be greatly dilated, reaching up to the diaphragm and containing a pint of pus. A sinus was left and continued to discharge till at the patient's request nephrectomy was done. Hæmorrhage came on sixteen hours after the operation and caused death in ten minutes.

MR. NORTON.

1186. Two kidneys affected with calculous disease. The large stone lodged in the pelvis of the right kidney has a process moulded to the beginning of the ureter, this caused hydronephrosis, which in life caused a fluctuating tumour. Both kidneys are dilated and atrophied, weighing together only five and a half ounces. The greater part of the calculi is phosphatic.

From a lady aged fifty-seven. Symptoms were present for three years. At first they were of a reflex nature: vomiting, &c., and were attributed to hysteria. About

three months before death the symptoms became unmistakable. Attacks of vomiting accompanied by great pain in the back and in the right groin. The urine at these times was greatly diminished in amount. Only an ounce of green purulent matter being passed in twenty-four hours. The patient died of exhaustion. Dr. KNOTT.

1187. A kidney containing an uric acid calculus within a cystic cavity.

From a boy who had no symptoms during life.

1188. A left kidney containing several calculi. The largest is lodged in the pelvis, others are contained in cavities beneath the cortex. The calculi consist of uric acid. The pelvis and ureter are somewhat dilated and thickened. The other kidney was contracted and granular.

The patient had also vesical calculus for which lithotomy was done and proved fatal. Mr. S. LANE.

1189. A kidney with its ureter and the bladder of a child. There is blood extravasated into the kidney substance and beneath the capsule. The ureter is dilated except at its lower end.

From a child aged three, from whom three months before admission a urethral calculus had been extracted. The patient was admitted in a dying state from suppression of urine. After death a calculus was found impacted in the lower end of the ureter. The condition of the other kidney is not mentioned. The microscope shows distension of blood-vessels and capillary ruptures.

1190. A kidney containing a calculus covered with sharp crystals of oxalate of lime.

From a youth of seventeen who died of tubercular meningitis.

1191. A kidney with a large calculus in the pelvis and several smaller ones lodged in the substance of the organ. The calculi are hard and heavy and consist of oxalate of lime. The black pigment on the surface gives the reactions for iron showing it to be derived from blood which passed over the calculi.

1192. Two kidneys containing uric acid calculi. The cortex is shrunk from interstitial inflammation. Dr. SIBSON.

1193. Kidney with a fibroma occupying its upper half. There are a few small cysts in the growth. Where the new growth joins the kidney substance there are some blood clots. In the recent state the growth contained large veins and yellowish cavities. The microscope shows fibrous fasciculi arranged in whorls. Mucoid tissue is seen alternating with fibrous. The occurrence of hæmorrhage is unexplained.

From a woman aged sixty-six, who died of acute peritonitis after herniotomy. There were no renal symptoms. Mr. PEPPER.

1194. Sarcoma of the kidney. The lower part of the organ remains unaffected.

From a woman aged seventy-two, who died of generalised sarcoma. The first symptom was hæmaturia, which appeared two years before death. The hæmorrhages were slight during the last year. A son and daughter had previously died of sarcoma. The tumour is composed of small round cells.





## 1195. Sarcoma surrounding the left kidney.

From a boy aged three, who died of exhaustion and emaciation. The tumour has its origin in the perinephritic tissues. The healthy kidney is seen at the upper end of the ureter. The child died of exhaustion and emaciation.

## 1196. Kidney with a large new growth springing from the hilum. The gland itself is normal and distinct from the growth. The microscope shows the tumour to be composed of small round cells, among which epithelial tubes are embedded, so that the growth is an adeno-sarcoma.

Removed from a child aged ten months by an abdominal incision, the peritoneum being turned back. The child died a few hours after the operation. The lump was noticed soon after birth. Mr. OWEN.

## 1197. Sarcoma of the lumbar glands implicating the kidney.

From a man aged forty-nine, who died of shock and hæmorrhage after removal of the clavicle for a soft growth. In the brain another growth was found after death. The microscope shows the structure to be sarcoma. Mr. JAS. LANE.

## 1198. Section of a kidney containing a sarcomatous nodule.

From a man aged sixty-two, who died of generalised sarcoma. The primary growth was between the bladder and the rectum. Dr. ALDERSON.

## 1199. Kidney containing a soft growth, secondary to cancer of the lung. The mass of new growth is as large as a hen's egg, and is broken down in the centre.

From a woman who had other secondary growths in the spine and suprarenal body. The microscope shows a spheroidal-celled cancer. Dr. ALDERSON.

## 1200. Cancer of the right kidney, secondary to scirrhus of the breast. The organ weighed 1-lb. 5-oz., and is completely infiltrated with growth.

From a woman aged 70, who died after fracture of the femur.

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 SERIES XXII.—AFFECTIONS OF THE BLADDER.

## 1201. Wheat-ears coated with phosphates, removed from the bladder and urethra through a perineal incision.

From an agricultural labourer who died from cystitis and secondary renal abscesses. The foreign bodies were introduced by the man's companions when he was unconscious from drink.

## 1202. Ruptured bladder. On the posterior surface are two apertures, both passing through the peritoneum a little below the attachment of the urachus. There is some lymph on the peritoneum around the openings.

From a man aged forty-nine who was knelt on during a brawl. The left kidney was lacerated. Death took place thirty hours after the injury was received.

Mr. URE.

1203. A bladder showing a sub-peritoneal rupture. The viscus is hypertrophied, and on the posterior surface is a rent two inches long. The peritoneum was uninjured, but was separated from the bladder around the laceration by blood and urine.

From a man aged thirty-six who had retention from a stricture and sought admission for severe pain following a blow. There was a prominence which was dull on percussion on the front of the abdomen as high as the umbilicus. As no catheter could be passed through the stricture, aspiration above the pubes was twice performed and a mixture of blood and urine was drawn off. It was noticed that aspiration caused no difference in the extent of the dulness. As the intense pain continued, perineal section was performed and the bladder drained. The patient died four days after admission.

Mr. PYE.

1204. A bladder with an aperture in its posterior wall, caused by sloughing. The organ is hypertrophied and fasciculated. Carmine has been injected beneath the mucous membrane, in order to suggest the appearance the viscus had when fresh.

From a young man who had urethral stricture when his spine was broken and he had paraplegia. Intense cystitis, intraperitoneal abscess, general peritonitis followed. Blood was passed with the urine during the last seven days of life.

1205. A bladder and uterus. The former is very greatly dilated and thinned, the latter is lined by remains of decidua.

The dilatation of the bladder took place during pregnancy.

1206. A bladder showing dilatation and atrophy. Its mucous membrane is ulcerated, owing to cystitis.

From a man who died after external urethrotomy had been performed for stricture.

1207. A bladder showing hypertrophy, fasciculation, and a large sacculus.

From a case of enlarged prostate.

1208. Hernia of the bladder. A bladder greatly dilated and constricted at its middle, where it is encircled by the structures bounding the inguinal canal. The prostate is hypertrophied. The upper part of the bladder was protruded as a scrotal hernia.

The patient in order to empty the bladder was obliged to compress the hernia.

Mr. S. LANE.

1209. Hypertrophied and contracted bladder from a boy who suffered from stone.

Mr. LANE.

1210. An infant's bladder containing a calculus, which is lodged at the neck of the bladder. The lower part of the bladder is thinned from the constant pressure of the stone, whilst the upper part is hypertrophied.

The stone consists of cystine. The colourless six-sided plates were seen by the microscope. The stone cuts like wax and contains a fourth part of its weight of sulphur.

NORTH COLLECTION.

1211. A bladder with a sacculus which contains some fragments of phosphatic calculus.

From a patient who died in 1854 from pyæmia after lithotrity.







1212. Bladder, penis, and urethra. The bladder shows changes due to cystitis, and the urethra is extensively torn. Both bladder and urethra contain phosphatic calculi.

From a man on whom lithotripsy was performed in 1850.

1213. Bladder and part of the penis and urethra, showing the damage done to the urethra, and the imperfect removal of the stone in a lithotripsy performed about 1850.

1214. A bladder showing changes due to acute cystitis. The mucous membrane is lacerated in several places, and everywhere ecchymosed. When fresh it was studded with small abscesses.

From a woman aged sixty-five from whom some papillomata had been removed by the forceps.

1215. Bladder and prostate. The former has its mucous membrane discoloured and covered with mucus, owing to chronic cystitis. The prostate is tunnelled by a false passage.

1216. A bladder, showing tubercular ulceration. The numerous ulcers vary in size from a pin's head to a halfpenny. The bladder walls are thickened. The vesiculæ seminales and vasa deferentiæ are blocked. The ureters were dilated and studded with tubercular ulcers.

From a man aged twenty-three who died of general tuberculosis.

Dr. HANDFIELD-JONES.

1217. A bladder which is hypertrophied and which has attached to its posterior surface a hydatid cyst. The latter has caused hypertrophy by its irritation and by the resistance it offered to the contraction of the bladder.

Dr. HANDFIELD-JONES.

#### PAPILLOMA OF THE BLADDER.

1218. A bladder and part of the urethra. The latter shows a wound in the middle line. Numerous papillomata arise from the mucous membrane of the bladder. The largest springs by a small base behind the orifice of the left ureter. There are several smaller papillomata. The kidneys were contracted and granular.

From a man aged forty-nine who died of hæmaturia.

1219. A fibro-papilloma of the bladder removed by the suprapubic operation.

From a man of sixty-four who had had hæmaturia and pain in the back for five years. The patient sank from vomiting and exhaustion eight days after the operation.

1220. A bladder containing a large fibro-papilloma. The growth is attached by a pedicle of such length that in life it fell on the internal orifice of the urethra, causing retention.

From a man aged thirty-five who for years had suffered from incontinence of urine. He had symptoms due to chronic alcoholism: high arterial tension and hæmorrhages from the nose, lungs, and bowel, as well as hæmaturia.

Dr. BROADBENT.

1221. A bladder with diffuse sessile papillomata.

From a man aged fifty-five who died of hæmaturia of two years standing. The ureters were dilated, the kidneys pyonephrotic.

Dr. SIBSON.

## SARCOMA AND CANCER OF THE BLADDER.

1222. A bladder, rectum, &c., showing a large lobulated tumour situated between the base of the bladder and the rectum. The growth has displaced the left ureter and seminal apparatus to the right of the middle line. The prostate is small and flattened out.

From a man aged sixty-two who died of generalised sarcoma. There was no difficulty in passing either fæces or urine. Dr. ALDERSON.

1223. A bladder greatly contracted. The whole of the inner surface is covered with shaggy growth which involves also the right side of the prostate and the left vesicula seminalis. The microscope shows the growth to be a mixed-celled sarcoma, in some parts of which epithelial cells are seen.

From a young man who had pain and hæmaturia for ten months, when he died of exhaustion. The bladder was explored through a suprapubic opening. The kidneys contained miliary abscesses and were hydronephrotic. Mr. SILEOCK.

1224. A bladder presenting on its mucous surface a circumscribed growth which the microscope shows to be cancer. The alveoli are small and the epithelial cells are placed around a lumen.

*P. M. Reports*, vol. vi. 900.

Mr. COULSON.

1225. A bladder affected with cancer over half its mucous surface. The growth is covered with villous projections.

From a man who died of suppression of urine. Six months before death he had a penetrating wound of the perinæum, which injured the rectum. Three years later the testes were removed for painless enlargement. Dr. SIBSON.

1226. Bladder with a soft cancer arising from the trigone.

From a man aged sixty, who had suffered from pain and cystitis for over a year. In life the growth was so soft that it could with difficulty be felt between the finger in the rectum and a sound in the bladder. The patient died of hæmorrhage and exhaustion. Mr. OWEN.

1227. A bladder and uterus. There is a growth in the bladder, which the microscope shows to be cancer. The uterus is healthy.

Mr. S. LANE.

1228. Bladder, &c., showing a growth which projects into the bladder and implicates the vesiculæ seminales. The microscope shows the growth to be cancer.

1229. A bladder with a growth obliterating the right ureter, which is dilated. The microscope shows a cancer. The epithelial cells are large, and the stroma is rich in small cells.

1230. A bladder everted. The greater part of the mucous surface is covered with shaggy new growth, which the microscope shows to be cancer.

From a clergyman aged sixty-two. For fifteen years he suffered from cystitis, and afterwards from hæmaturia. The attacks of bleeding were preceded by mental distress, and accompanied by an increased secretion of urine. Death was due to an attack of hæmorrhage, which lasted three months. Mr. COULSON.





1231. A bladder obliterated by an epithelioma. Suprapubic cystotomy was done for drainage, and the growth is seen fungating at the lips of the wound. The kidneys were pyonephrotic.

From a medical man, who, after suffering intense pain, died in the hospital.

Mr. PAGE.

### SERIES XXIII.—AFFECTIONS OF THE PROSTATE.

1232. Bladder, prostate, and urethra. The lateral and middle lobes of prostate are hypertrophied. There are two false passages, one tunnels the middle lobe, another leaves the urethra opposite the bulb.

Mr. COULSON.

1233. Bladder and prostate. The latter has its lateral lobes greatly hypertrophied, the middle lobe, which is hypertrophied to a less degree, has along its middle a groove caused by the use of the catheter. A portion of calculus is lodged in the prostatic urethra. The bladder is hypertrophied.

Mr. COULSON.

1234. Bladder and prostate. The latter is hypertrophied and traversed by three false passages. The bladder is dilated and atrophied.

From an old man on whom the catheter passed easily.

Mr. COULSON.

1235. Bladder and prostate. The latter shows hypertrophy, especially of the middle lobe. There is a false passage through the left lateral lobe. The bladder and ureters are dilated.

1236. Bladder and prostate of an old dog. The prostate, which in dogs is normally large, is greatly hypertrophied, and contains many cysts which are similar to those found in the enlarged prostate of men.

The chief symptom was very frequent micturition.

Mr. J. E. LANE.

1237. Bladder and prostate. The latter is hypertrophied.

From a man aged seventy-five who had suffered from retention with overflow and hæmaturia. He died comatose shortly after regular catheterisation was begun.

1238. Bladder and prostate. The lateral lobes of the prostate are greatly enlarged. A cut has been made in the left lobe and the enlargement is seen to be due to an encapsuled growth, which the microscope shows to be an adenoma. The bladder shows changes due to cystitis.

From a man aged forty-eight. For six years he had to wear a urinal on account of increasing irritability of the bladder. Two years before death he began to use the catheter and from that time severe headaches, from which he had previously suffered, diminished in frequency and severity. The patient, a medical man, had orchitis and neuralgia of the hip, and from time to time passed white calculi. He determined to have the bladder explored. This was done through a perineal opening and twelve white (carbonate of calcium) calculi were removed from what appeared to be a cavity in the prostate. The wound healed, but five weeks after the operation the patient suddenly sank. The kidneys were found to be diseased.

Mr. PAGE.

1239. Bladder, &c., showing a slight stricture of the urethra. The lateral lobes of the prostate are converted into abscess cavities, which the microscope shows to be lined with tubercles. The bladder is hypertrophied, and the middle lobe of the prostate enlarged.

From a man aged fifty-four who had a stricture for over two years. He was admitted for retention of urine and he died of dyspnoea. He had double pneumonia and pleurisy, pyonephrosis, and abscess in the kidney.—*P. M. Reports*, 1890. 740.

Mr. NORTON.

1240. Bladder and prostate. Springing from the latter is a mass of new growth, which the microscope shows to be cancer. The ureters are patent, though they pass through the growth, which pushes up the base of the bladder and narrows the prostatic urethra.

From an old man who had no pelvic symptoms and who was admitted for a spontaneous fracture of the femur, No 375, caused by a secondary growth in that bone. The patient died from the effects of a secondary growth in the skull, No. 374.

Mr. SILCOCK.

1241. A bladder, &c., the prostatic urethra is laid open. There are two prostatic calculi emerging from pouches in the urethra. The bladder presents a small sacculus close to the right ureter.

From a man aged forty-five who died after perineal section, done for stricture. The kidneys were studded with small abscesses.

#### SERIES XXIV.—AFFECTIONS OF THE URETHRA.

1242. Part of a penis with the urethra opened dorsally, showing a laceration extending into the bulb.

From a cabman who struck the perinæum on the edge of a board in dismounting from his cab. There was free hæmorrhage from the meatus, and a large catheter was passed and tied in. The patient withdrew the catheter in the night, and lost so much blood that he died.

1243. A male urethra laid open, showing dilatation of the membranous and bulbous parts behind a stricture situated one inch and a half from the meatus.

1244. A bladder and penis with the urethra opened dorsally, showing a narrow stricture in the bulbous part, and a long false passage.

1245. Penis with the urethra, showing a tight hourglass stricture two inches and a half from the meatus, and dilatation and ulceration of the urethra behind the stricture. The bladder shows changes due to chronic cystitis. The prostate is hypertrophied.

1246. Bladder and penis. The urethra is opened dorsally, and shows a stricture one inch and a half in front of the bulbous part. There is a false passage starting in the floor of the urethra in front of the stricture.

Mr URE.







1247. Penis with the urethra opened dorsally, showing a stricture commencing three inches from the meatus, and extending backwards for an inch and a half. There is a false passage commencing in front of the stricture, and passing along the left side of the urethra to the bladder.

1248. Bladder, prostate, penis, and urethra. The latter shows a tight stricture extending from the membranous urethra forwards for one inch and a half. A long false passage extends from in front of the stricture into the prostate, where it has caused a perineal abscess.

1249. Penis with the urethra opened and showing three wounds, of which the most anterior was made for the relief of extravasation of urine behind a stricture. The others are false passages made in attempting to catheterise the bladder from the wound.

1250. Bladder, prostate, and part of the penis, with the urethra opened to show several bridle-bands in the membranous part.

Mr. COULSON.

1251. Bladder, prostate, and urethra. In the latter a bristle is passed beneath a bridle-band. The membranous part of the urethra in which the bridle-band is situated is surrounded by dense inflammatory infiltration. The prostate is hypertrophied, and the bladder shows changes due to chronic cystitis.

Mr. COULSON.

1252. Bladder, prostate, and urethra. The latter presents an hour-glass stricture at the junction of the bulbous and membranous parts. The stricture admits only a fine probe. The bladder is contracted, hypertrophied, and sacculated.

1253. Sagittal section of a bladder and urethra. There are several urethral fistulæ and a perineal abscess. The stricture which caused the fistulæ had been dilated before death.

Mr. LANE.

1254. Bladder and penis. The urethra is opened and shows a stricture and a perineal abscess.

From a man aged forty-two who had traumatic stricture for fourteen years. The stricture was dilated and afterwards several calculi were passed with the urine. Perineal abscess followed. After death miliary abscesses were found in the kidneys and in the submucous tissues of the bladder.

Mr. LANE.

1255. A penis with the urethra opened along the dorsum. On the ventral side is an abscess cavity as large as a hen's egg. In the floor of the urethra there is a large opening communicating with the cavity of the abscess, which was due to gonorrhœa.

Mr. COULSON.

1256. Penis with the urethra opened. Three-quarters of an inch in front of the bulb there is a stricture almost obliterating the urethra. Immediately behind the stricture is a fistula.

1257. Bladder and penis, with urethra opened dorsally, showing in the bulbous parts a stricture in the form of a transverse septum. The urethra is dilated behind the stricture. The prostate is enlarged and contains cystic spaces. The bladder is dilated and hypertrophied.
1258. Bladder, part of the rectum, and the penis opened dorsally. A dense stricture obliterating for an inch the penile part of the urethra. Immediately behind the stricture is an abscess cavity. The whole of the urethra behind the stricture is greatly dilated. The bladder has been tapped through the rectum.
1259. Bladder and penis with the urethra opened, showing a stricture commencing in front of the bulb and extending backward about an inch. Behind the stricture the mucous membrane is ulcerated, and there is a fistula. Mr. LANE.
1260. Bladder, penis, &c., showing a stricture. There is a recto-urethral fistula. The bladder is hypertrophied and sacculated. Mr. COULSON.
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#### SERIES XXV.—AFFECTIONS OF THE PENIS.

1261. A prepuce showing a chancre. Amputated during life.
1262. Part of a penis. The glans present two depressed scars resulting from chancres.
1263. Part of a penis showing ulcers due to tertiary syphilis.
1264. A prepuce covered on its inner surface with warts.  
 Removed from a man aged twenty, who had gonorrhœa and balanitis. The prepuce was retracted and its inner surface and the glans were covered with warts. To the eye the organ exactly resembled a case of epithelioma. There was however no induration and, after scraping, the glans looked almost normal. Mr. OWEN.
1265. A prepuce covered at its margin by a crop of warts.  
 Removed by amputation. Mr. LANE.
1266. Part of a penis presenting a growth of long papillæ at the junction of the glans with the prepuce. There is epitheliomatous induration around the base of the papillæ.
1267. Part of a penis showing an epithelioma starting from the corona. Mr. S. LANE.
1268. A penis extensively affected with epithelioma. Mr. PAGE.
1269. A penis affected with epithelioma. The dorsal part of the prepuce has been destroyed by the growth. Removed by amputation. Mr. COULSON.





1270. A section through a penis affected with epithelioma. The prepuce was phimosed. The growth had ulcerated through it in several places.

From a man aged sixty-two. He had never been able to retract the prepuce and had suffered frequently from balanitis. Two years before amputation was done a hard lump was first noticed. There was an enlarged gland in the left groin. The stump healed in a fortnight.

Mr. J. C. BARR.

1271. The penis of a negro affected with epithelioma.

Removed by amputation.

Mr. BOON, St. Kitts.

1272. Part of a penis deeply infiltrated with epithelioma which has caused stricture of the urethra.

1273. Part of a penis showing an epithelioma of the glans, extending for some distance along the urethra.

Mr. J. LANE.

1274. A penis showing a large epithelioma involving the glans, the prepuce, and part of the urethra.

Mr. LANE.

1275. A penis extensively destroyed by epithelioma.

From a middle-aged man who had had what were thought to be gonorrhœal warts removed. Amputation was done behind the scrotum.

Mr. PYE.

1276. A penis, &c., with a large mass of new growth which has ulcerated through the skin opposite the root of the penis. There is a fistulous opening behind the projecting mass of new growth. The microscope shows a spheroidal-celled cancer—the so-called cancer of the corpora cavernosa, which probably has its origin in Cowper's or some other gland.

Mr. J. LANE.

## SERIES XXVI.—AFFECTIONS OF THE TESTIS, SPERMATIC CORD, AND TUNICA VAGINALIS.

1277. A testis which was in the abdominal cavity at birth. The gland presents a long mesorchium by which it was attached.

From a monster. (No. 537.)

1278. The sac of a hydrocele. The testis is seen at the back. The vas deferens is injected with mercury. The spermatic artery and veins are injected with vermilion.

Mr. S. LANE.

1279. The sac of a hydrocele distended and dried. The vessels are injected with tallow.

Mr. BAKER.

1280. Testicle and tunica vaginalis. The latter is greatly thickened and covered with a coat of lymph. The cavity was filled with pus.

Removed from a patient who five years previously had been kicked by a horse. The part swelled immediately after the injury and was subject to attacks of inflammation.

Mr. COULSON.

1281. Testis, tunica vaginalis, &c., showing a cyst of the epididymis (encysted hydrocele) projecting into the tunica vaginalis.

1282. Testis, &c., showing an encysted hydrocele of the tunica vaginalis.

MR. HAYNES WALTON.

1283. Testis and tunica vaginalis injected with carmine. The cavity contained thick pus loaded with cholesterine.

From a man who had discharging sinuses leading to the first left metatarsophalangeal joint. The toe was amputated and cellulitis of the leg and œdema of the scrotum followed.

MR. J. LANE.

1284. Testis with the tunica vaginalis opened showing thickening of its capsule and hæmatocele. The cavity of the tunica vaginalis is filled with partly decolorised clot.

1285. Testis and tunica vaginalis opened from behind showing a hæmatocele. The greater part of the clot is organised and decolorised.

MR. PEPPER.

1286. Testis and tunica vaginalis. There was a hydrocele of the tunica vaginalis as large as a hen's egg. The body of the testis is indurated from chronic interstitial inflammation. At the back of the testis and in the globus major are a number of cysts of varying size, some of the cysts open into the tunica vaginalis which contained a turbid serous fluid. The smaller cysts contained a thick slimy fluid. The microscope shows some healthy tubes, and some becoming dilated into cysts. The condition is due to obliteration of the vas deferens.

From a patient who died in one of the medical wards,—*Path Trans.*, 1888. 198.

1287. A testis showing cysts in the rete testis and one larger cyst in the epididymis.

1288. Testis, &c., with a cyst as large as a bantam's egg behind the epididymis. It is connected by a thick stem to the beginning of the vas deferens. It is the vas aberrans dilated. It contained a creamy liquid which the microscope showed to be full of spermatozoa. A small cyst is present between the globus major and the testis. This also contained spermatozoa. The veins are injected and show slight varicocele.

From an old man who died of phthisis, and who thought he had three testicles.

MR. NORTON.

1289. A testis showing two abscess cavities in the body of the gland. The cord is thickened and its elements matted together. The vas deferens is thickened and plugged with yellow matter.

Removed after death from a man aged fifty-three, who suffered from stricture. Cystitis with high temperature set in, and six weeks later the left testis swelled and softened. The abscess was tapped, and at the same time a perineal abscess was opened.

MR. OWEN.







1290. A testis showing changes due to acute orchitis. The tubules are enlarged, especially in the epididymis.

Removed from a man aged thirty-three, on whom perineal section was performed for stricture. About the neck of the bladder were numerous abscesses, through one of which passed the right vas deferens, which was found to be distended with pus. The suppuration extended to the epididymis and testis.

Mr. J. LANE.

#### TUBERCLE.

1291. A testis showing induration of the epididymis and an abscess cavity in the body of the gland. Due to tubercle.

Removed by amputation from a patient who had lost the other testis from the same disease.

Mr. PYE.

1292. A testis affected with tubercle. The disease is limited to the epididymis. There is a large cavity in the globus minor, and a small one in the globus major.

1293. A testis affected with tubercle. In the body of the gland is a cavity lined with caseous matter, and containing a necrosed mass from which tubules project. Numerous yellow tubercular foci are scattered through the gland. The epididymis is enlarged and indurated. In the globus minor there is a cavity containing caseous matter.

Mr. PEPPER.

1294. A testis injected with gelatine and carmine, showing changes due to tubercle. The non-vascular caseous patches contrast with the injected parts, and in the lowest injected area the walls of the seminal ducts are seen to be thickened. There is an abscess-cavity in the epididymis.

Removed by amputation from a man aged thirty-three, whose family was phthisical.

Mr. NORTON.

1295. A right testis, &c. The vas deferens is thickened. Cavities containing caseous matter exist in the epididymis. The connective tissue of the corpus Highmoreanum is increased in amount, and where it joins the rest of the gland caseous tubercles are scattered. The cavity of the tunica vaginalis is partly obliterated.

Removed after death from a patient who died of general tubercle.

1296. A testis, &c., showing tubercular epididymitis. The tubules are distended with caseous matter, and here and there cavities have formed owing to destruction of the tissues.

Mr. SILCOCK.

1297. A testis injected showing tubercular lesions. The spermatic cord is much enlarged from inflammatory effusion. The middle part of the testis is occupied by caseous matter which is pointing beneath the skin. The epididymis is for the most part destroyed and reduced to an indurated mass.

Removed by amputation from a man who three years previously lost the other testis from the same disease.

Mr. PEPPER.

1298. A testis showing tubercular lesions. A section has been made commencing in front. The anterior part is ragged from ulceration. The tubules of the epididymis are surrounded by tubercular deposit.  
Mr. J. LANE.
1299. A testis affected with tubercle. The globus major and globus minor are full of caseous matter, and the body of the gland is in process of invasion from behind. Disseminated patches of tubercle are seen in the anterior part of the gland.  
Mr. PAGE.
1300. A testis with tubercular deposit in the epididymis, and miliary deposits scattered through the body of the gland.  
Removed from a young man.  
Mr. PEPPER.
1301. A testis showing tubercular lesions.  
Removed from a child aged eight.
1302. A testis showing the condition termed hernia testis. The microscope shows tubercles in the protruded part of the gland.  
Removed by amputation.  
Mr. COULSON.
1303. Hernia testis. Nearly the whole of the body of the gland protrudes. From the lower part of the protrusion hangs a mass composed of gland-tubules, matted together by pus.  
Removed from a man who died of tetanus, caused by the lesion in the testis.  
Mr. COULSON.
1304. A testis removed on account of hernia testis. The anterior part of gland protruded. A previous operation had been performed to return the protrusion into the scrotum and had failed. The greater part of the cavity of the tunica vaginalis remains unobliterated. The epididymis is enlarged, especially the globus minor, by tubercular matter.  
Mr. COULSON.

#### SYPHILITIC LESIONS.

1305. Testis showing tertiary syphilitic lesions, the vessels are injected with carmine. The gland is enlarged generally, owing to diffuse orchitis. Above the middle is a gumma in process of development. It is raised above the level of the rest of the section owing to its greater density, and is injected, thus showing that in the early stage a gumma is vascular. The microscope shows that in the nodule the tubules are displaced by inflammatory cells. The vessels of the cord are enlarged, but not matted together. There is no hydrocele.  
Removed from the body of a man killed by an accident when suffering from well-marked tertiary syphilis.  
Mr. PEPPER.
1306. Testis and tunica vaginalis, showing the condition known as hydro-sarcocele. There is a softening gumma in the testis which is indurated. The tunica vaginalis is greatly thickened and has its cavity divided into two by a broad adhesion. The two spaces





were distended with fluid. The microscope shows the tubules to be atrophied, or destroyed and replaced by a small-celled infiltration and fibrous tissue.

Mr. SILCOCK.

1307. Testis containing a gumma. The caseous centre contains remains of tubules, and is surrounded by a fibrous capsule. The remainder of the gland is indurated from diffuse orchitis.

Mr. OWEN.

1308. Testis injected. The greater part of the gland is non-vascular, and occupied with caseous (gummatous) matter.

From an old man who had other lesions of tertiary syphilis. The organ sloughed and was removed. The patient died of cellulitis.

Mr. E. OWEN.

1309. A testis showing a gumma during the period of growth. In the recent state it was of firm elastic consistence, and yellowish colour, surrounded by grey fibroid zone. The tunica vaginalis is adherent.

Removed from the body of a patient who died of gangrene of the lung, due to syphilitic ulceration of the tracheæ opening into the œsophagus. There was a gumma in the spleen.

Dr. BROADBENT.

1310. A testis, the body of which is intersected by fibrous bands, due to chronic syphilitic orchitis. Castration was performed on account of pain.

#### NEW GROWTHS OF THE TESTIS, &c.

1311. A left testis showing a new growth of which the tunica albuginea forms the capsule. The growth is a myxo-sarcoma with remains of the tubules scattered through it.

From an infant. The testis was enlarged at birth and rapidly increased in size. It formed a smooth painless tumour.—*Path. Trans.*, 1885, p. 301.

Mr. OWEN.

1312. A testis enlarged and showing an ulcerated surface at its lower part, in the upper part are a number of cysts. The microscope shows a new growth of myxo-sarcomatous character.

From a child aged one year and nine months, which died of exhaustion and emaciation. The glands of the left groin were the seat of secondary growths, and the left kidney was surrounded by a large mass of new growth as large as a child's head.

Mr. COULSON.

1313. A testis cut in half. The section presents an appearance characteristic of spindle-celled sarcoma. There is no trace of the normal gland-tissue.

Removed from a child aged six years, whose general health was good. The swelling was noticed for the first time five weeks before removal. There was no recurrence six months later.

Mr. PAGE.

1314. A large new growth of the testis. The growth is enclosed in a thick capsule and divided by septa. The microscope shows a large round-celled sarcoma.

Removed from an old man who had first noticed the growth four years before. It caused no pain but was inconvenient, as it extended nearly to the knee and gave rise to dragging sensations. The cord was unaffected. There were no secondary growth. There were no recurrence eighteen months later when the man died of apoplexy.

Mr. PEPPER.

- 1314a. A testis which is the seat of a sarcomatous growth. The tunica albuginea was stretched over the tumour and has been turned back. The growth is encapsuled and lobulated. The red glass rods are passed beneath portions of the testis, which are flattened out but otherwise normal. Compare Nos. 1316, 1320, 1321, &c. The microscope shows a large round-celled sarcoma.

From a gentleman aged about forty.

Mr. PAGE.

1315. A lobulated tumour of the testis which is extensively calcified; the calcified areas being separated by bands of cartilage. The microscope shows the growth to be a chondro-sarcoma, before removal it was thought to be tubercular.

Removed by amputation from a middle-aged patient who eight years previously had painful swelling of the testis. The swelling went down under treatment but recurred from time to time. One year before the castration was done an abscess formed and was opened. Another abscess was forming when the testis was removed.

Mr. COULSON.

1316. Testis, &c., with a cystic new growth. The growth probably had its origin in the hilum as the testis remains flattened out and converted into easily separable lamellæ. The microscope shows the tumour to consist of a ground-work of cartilage and spindle-cells containing columns of epithelial cells, of which the outermost layer are columnar in shape, whilst the central cells are flattened. The cysts are formed by the liquefaction of the central cells and the subsequent accumulation of fluid in the space so formed.

Mr. COULSON.

1317. An encapsuled cystic tumour of the testis. The microscope shows the growth to be a cystic chondro-sarcoma.

Removed from a middle-aged patient.

Mr. LANE.

1318. A testis showing a new growth which is lobulated and contains small mucous cysts at the upper part. A piece of cartilage is visible about the middle of the epididymis. Microscopical nodules of cartilage are scattered through the growth which is composed chiefly of small cells. The tunica vaginalis is occupied by caseous inflammatory matter. The cord is thickened but not invaded by the growth.

Mr. OWEN.

1319. Cystic new growth of the testis. The microscope shows a chondro-sarcoma in which cysts have been formed by mucoid degeneration.

Mr. GASCOYEN.







1320. Testis, &c., with an encapsuled new growth (chondro-sarcoma). The remains of the testis are flattened out over the tumour, which probably began in the mediastinum testis or in the epididymis, small cysts are scattered through the growth. Mr. OWEN.

1321. Testis with a large soft new growth which the microscope shows to be a round-celled sarcoma.

The growth appears to have begun in the mediastinum testis, or in the epididymis. Most of the gland remains stretched out over the front of the tumour. Mr. SILCOCK.

1322. A large sarcoma of the testis. The growth is sub-divided by thick fibrous septa.

1323. Testis, &c., showing a growth of the spermatic cord with the healthy testis below. The microscope shows the growth to be sarcoma.

The tumour had been noticed for six months, when the rate of growth became very rapid and castration was performed. Mr. COULSON.

1324. Testis, &c., showing a growth of the spermatic cord. The testis is unaffected. The microscope shows the growth to be a sarcoma, containing cartilage and mucoid tissue. In the recent state the surface of the section presented quivering gelatinous areas, resembling a mucous polyp of the nose, intersected by denser white bands.

Removed from a patient aged seventy-five. The growth was known to have lasted nine months. Mr. PEPPER.

1324a. A testis cut open. The organ is replaced by new growth, which here and there presents an alveolar appearance to the naked eye. Under the microscope the growth is seen to be a cancer. The alveoli are occupied by convoluted tubes, the walls of which are composed of a single layer of epithelial cells.

From a patient aged 33. The growth was first noticed seven months before the patient was admitted. There were attacks of pain in the organ.—*Clin. Notes*, 656. 1891. Mr. SILCOCK.

1325. Tumour of the testis. The microscope shows alveoli bounded by fibro-cellular tissue, containing clear cells which are separated from one another by fibrils of connective tissue.

The tumour is an alveolar sarcoma. It was removed on account of its rapid growth. Mr. HAYNES WALTON.

1326. A soft cancer of the testis. Mr. COULSON.

1327. A cancer of the testis injected. The injection has not reached some parts of the growth, probably on account of post-mortem thrombosis. The alveolar structure is visible to the naked eye. Small cysts are also seen. Mr. PEPPER.

1328. A cancer of the testis containing small cysts resembling those of No. 1329. When fresh the growth was very soft. The microscope shows a disordered neoplastic tubular structure. The tubes here and there are dilated into cysts. The alveolar walls are highly cellular, very large cells occurring in some of them.

Mr. PEPPER

1329. Testis, &c., with a cystic tumour, the body of the testis is unaffected. Small protrusions of growth are seen in the larger cysts. The section presents an alveolar structure. The microscope shows the cysts to be lined with epithelial cells. Some of the cysts appear to have been formed by the breaking down of the central cells of the epithelial nodules. The epithelial elements are embedded in fibro-cartilaginous tissue. The position of the growth at the back of the testis, suggests that it arose in a vestige of the Wolffian body (the paradidymis) which extends from the organ of Giraldès into the epididymis. Mr. COULSON.

1330. Left testis and spermatic cord showing colloid cancer in the latter. The alveolar structure of the growth is well marked. The microscope shows the colloid change to be so complete that none of the original cells remain to point to the origin of the growth.

Removed after death from a man aged fifty-eight who died of epithelioma of the œsophagus. A lump had been present for eleven years in the left spermatic cord. It formed a firm lobulated pear-shaped swelling extending to the left inguinal canal. At the time of death there were secondary growths in the peritoneum and in the right spermatic cord. Sir EDWARD SIEVERING.

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## SERIES XXVII.—AFFECTIONS OF THE OVARIES AND PAROVARIA.

1331. Uterus and appendages showing the results of chronic ovaritis, &c. The fimbriated extremity of the left Fallopian tube is adherent to the corresponding ovary and completely occluded. The tube is dilated (hydrosalpinx). The right tube is also slightly dilated. Its abdominal opening is all but closed, the fimbriae are retracted in such a way that the opening looks like a sea-anemone when the tentacles are just disappearing. There are tags of fibrous deposit on the surface of and small fibroids in the substance of the uterus. There is a simple cyst at the hilum of the right ovary, and a hydatid of Morgagni at the extremity of one of the Fallopian tubes.

### OVARIAN CYSTADENOMATA.

1332. A large cystic adenoma of the ovary dried and injected.

Removed from a woman aged thirty who had gradual enlargement of the abdomen for five years. The catamenia appeared two months after the operation.

Mr. LANE.

1333. Part of a cystic adenoma of the ovary.

The cysts are lined by short columnar epithelium. The stroma of the tumour is fibrous. NORTH COLLECTION.

1334. Part of a cystic adenoma of the ovary. The contents of the cysts are of gelatinous character.

Under the microscope the cysts are seen to be lined by a simple layer of columnar epithelium resting on a basement membrane which is folded so as to form gland-like recesses. Mr. SILCOCK.





1335. A portion of the inner wall of a cystic adenoma of the ovary. The lining membrane is covered with small polyps which are attached by slender pedicles and contain numerous cysts. The microscope shows the cysts to be lined with a single layer of columnar epithelium lying on a folded basement membrane. The larger cysts contained clear fluid.

From a married nulliparous woman aged forty-three who had always menstruated regularly, and for several months before the operation profusely. After several tapings ovariectomy was begun but could not be completed on account of adhesions. The patient died of peritonitis. Dr. TYLER SMITH.

1336. Uterus and appendages showing papilliferous cystic adenoma in both ovaries and prolapse of the uterus, the body of which is elongated, measuring two-and-a-half inches. The ovarian growths are covered with papillæ, which reached the surface owing to rupture of cysts. Cystic adenomata with intracystic growths arise at the hilum of the organ in the remains of the Wolffian tubes. The microscopic appearance is similar to that of the next specimen. The uterus is completely prolapsed, the lower half of it being below the level of the clitoris.

Removed from a woman aged thirty-eight. The abdominal cavity was full of fluid. Dr. ALDERSON.

1337. The pelvic organs of a woman showing a large cystic growth of the right ovary. The tumour is lobulated and has a nodular surface. It is intimately adherent to the rectum, the uterus, and surrounding parts. In the recent state the cysts contained colloid matter. They present papillary processes which project into the larger cysts and themselves contain small cysts. The microscope shows the cysts to be lined with a single layer of columnar epithelium, and the stroma rich in cells. The uterus is anteflexed and twisted to the right. The right Fallopian tube is stretched over the growth and is drawn out to the length of eight inches. The rectum is pressed upon and it, together with the ureters, internal iliac vessels, &c., is involved in a mass of inflammatory adhesions. The left ovary and Fallopian tube are unaffected.

The patient was forty-four years of age and her symptoms commenced eight months after the menopause and five months before death. She complained of pain in the back and in the lower abdomen. Examination showed the uterus to be fixed by a large mass which seemed to fill the pelvis and which extended upwards above the umbilicus. The tumour grew rapidly, and albuminuria, hæmaturia, and finally retention of urine, appeared. An exploration was made through an incision, but it was found impossible to remove the growth on account of adhesions. The patient died three days after the operation. Dr. MEADOWS.

#### PAROVARIAN CYSTS.

1338. Uterus and appendages showing several cysts in the broad ligaments. The cysts have formed in the tubes of the parovarium—the remains of the Wolffian bodies.

NORTH COLLECTION.

## DERMOID CYSTIC TUMOURS OF THE OVARY.

1339. Uterus and appendages showing a multilocular dermoid growth in the left ovary. The largest cyst has been opened to show its contents—a collection of sebaceous secretion below which are a few short thick hairs. One of the smaller cysts has been emptied, and is seen to have a smooth lining. The uterus is lateroflexed towards the affected ovary.

Dr. MEADOWS.

1340. A bilocular dermoid tumour of the ovary. The cysts contain sebaceous secretion and fine hairs. The microscope shows an outer coat of fibrous tissue and an inner coat of skin with sebaceous glands and hair follicles.

1341. Part of the wall of an ovarian dermoid containing three teeth embedded in bony alveoli. A number of stiff black hairs surround the rudimentary jaw.

1342. A dermoid tumour. The growth is composed of a number of cysts of various sizes. Some of the cysts are opened: one contains an alveolus with two ill-developed teeth. Numerous hairs spring from the inner surface of the cysts.

The specimen was removed by operation from a woman aged forty-two. She was admitted into the hospital for ovarian pain and dysmenorrhœa. On examination the left ovary was found to be greatly enlarged, the tumour being easily felt through the abdominal wall. The right ovary was also enlarged and tender. Ovariectomy was performed. There were no adhesions. The patient grew weaker after the operation and died in five days. At the autopsy large quantities of blood-clot were found in the peritoneal cavity, and there were the results of general peritonitis. The right ovary contained an abscess which had formed at the site of a corpus luteum.

Dr. MEADOWS.

## SARCOMA OF THE OVARIES.

1343. Uterus and appendages showing both ovaries replaced by solid tumours. There is a small cyst at the attachment of the right ovary. The uterus is normal. The growths are composed of friable tissue, which the microscope shows to be small-celled sarcoma.

From a woman aged sixty. Abdominal pain and distension were the first symptoms. Tapping was performed twenty-seven times. Thrombosis of the left internal jugular and subclavian veins occurred. The right pleural cavity was filled with fluid, and was tapped several times. The patient was in the hospital nine months and a half, and died of exhaustion. After death secondary growths were found in the liver, right lung, and intestines.

Dr. BROADBENT.

## CANCER OF THE OVARIES.

1344. Uterus and appendages. Both ovaries present large lobulated cystic growths which extend inwards along the broad ligaments and Fallopian tubes, of which the left is opened, and is seen to be infiltrated with new growth in its whole length. The body of the uterus presents a small sub-peritoneal fibroid and









the cervix small mucous polypi. The microscope shows the growths to be soft cancer. The cysts are formed by the liquefaction of the central cells of the alveoli.

From a patient aged fifty-two. Menstruation had ceased two years before death. The growths caused pain, and tenesmus, and tenderness. A tumour could be felt reaching half way to the umbilicus. Rectal and vaginal exploration showed the uterus to be fixed by a mass which lay behind it and seemed to surround the rectum. Death was due to exhaustion. At the autopsy the ovarian tumours were found to be non-adherent. The peritoneum and omentum were extensively infiltrated and there was secondary deposit at the pyloric end of the stomach. Dr. MEADOWS.

1345. Uterus, left broad ligament, and ovary. The latter greatly enlarged. The growth is solid for the most part, but it contains a few cysts. Microscopic examination shows it to be a soft cancer.

From a woman aged twenty-five who had good health to within a few months of her death. Symptoms began with a severe attack of pain in the back, with pain and numbness down the right thigh. The menses were scanty, there was no pelvic pain. There were secondary growths in various parts of the body. NORTH COLLECTION.

1346. Uterus and appendages. The ovary is enlarged and solid, and is covered with dilated veins. Microscopic examination showed a soft cancer into which hæmorrhage had taken place.

From a woman aged forty-three who died in the hospital from cancer of the stomach. There were no symptoms due to the ovarian growth, which was discovered after death. Dr. BROADBENT.

1347. Uterus and appendages showing a growth which extends from the base of the left ovary into the broad ligament and along the left Fallopian tube. There is a deposit of growth in the left side of the fundus. The right ovary is unaffected.

The microscope shows the growth to be a spheriodal-celled cancer. The growth is probably of parovarian origin.

1348. Uterus and appendages. The ovaries are both enlarged and the section shows them to be replaced by a firm growth with contains a few small cysts. The larger cavity on the left side is a dilatation of the Fallopian tube.

The microscope shows the growths to be cancerous. There is a granular condition of the upper part of the vagina. NORTH COLLECTION.

## SERIES XXVIII.—AFFECTIONS OF THE UTERUS AND FALLOPIAN TUBES.

### CONGENITAL DEFECTS.

- 1348a. A two-horned uterus with the rectum. The cervix is single and measures one inch and a half in length. Both horns contain decidual membrane. The right is considerably hypertrophied, owing to its having contained a foetus. From the posterior surface of the cervix a double fold of peritoneum passes to the rectum, dividing the recto-uterine pouch in two.

Dr. M. HANDFIELD-JONES.

1349. A two-horned uterus with the bladder. The common cervix is one inch long. A fold of peritoneum passes from the front of the cervix to the back of the bladder. This fold was continuous with one passing from the back of the cervix to the front of the rectum.

Mr. AVERY.

#### ATROPHY.

1350. A uterus one inch and a half long and three eighths of an inch at its widest part. The os externum is closed.

An example of senile atrophy.

#### HYPERTROPHY.

1351. The intravaginal portion of a cervix uteri removed by amputation. The part is greatly hypertrophied. There is an ulcer which was caused by friction, the part being protruded beyond the vulva. The sound passed four-and-a-half inches. The depth of the vagina was normal.

From a woman aged thirty-seven who had borne seven children.

Dr. M. HANDFIELD-JONES.

1352. The intravaginal portion of cervix uteri showing hypertrophy.

Removed from a child aged five years. The microscope shows the part to be composed of the normal tissues. A case of congenital hypertrophy.

Dr. M. HANDFIELD-JONES.

#### DISPLACEMENTS OF THE UTERUS.

1353. The organs of generation of an old woman showing prolapse of the uterus. The whole of the vagina is everted, there being no cul-de-sac. The uterus is five inches long and is constricted at the middle. The os externum is ulcerated. The bladder is in its normal position. The piece of red glass shows the lowest limit of the recto-uterine pouch of peritoneum.

1354. Antelexion. A section of a uterus, the body of which is bent sharply forwards on the cervix.

#### ENDOMETRITIS AND SALPINGITIS.

1355. The upper part of the uterus and the Fallopian tubes with the bladder showing the body of the uterus and the Fallopian tubes distended with caseous matter.

The patient, a child aged five, was admitted with symptoms of tubercular meningitis and soon died. After death tubercle was found in the middle ears, the meninges, the lungs, and the peritoneum as well as in the uterus.—*Path. Trans.*, vol. 36, p. 303.

Mr. SILCOCK.





## PYOSALPINX.

1356. Section of a dilated portion of Fallopian tube. The pyosalpinx was of globular form and was filled with thick pus. The ovary is adherent at the back of the specimen.

Removed from a woman aged twenty-five who seven years before this operation had had a sternoclavicular joint scraped out. Both Fallopian tubes and both ovaries were removed and when last heard of, three years after operation, menstruated regularly. The microscope shows a layer of granulation-tissue lining the cyst but no tubercles. Mr. PEPPER.

1357. The pelvic organs of a female child showing tubercular pyosalpinx on both sides. Tubercles are scattered in the sub-peritoneal tissue. There are tubercular ulcers of the rectum, and recto-vaginal fistula.

## MUCOUS CYSTS.

1358. A uterus opened showing in the cervix mucous cysts, known as Nabothian follicles.

## NEW GROWTHS.

## ADENOMATA.

1359. A uterus with a mucous polyp (adenoma) hanging from the os externum. These growths have the same structure as the mucous membrane in which they arise. They are very vascular.

1360. A uterus opened showing two mucous polyps arising in the body. They were soft and very vascular.

From a woman aged sixty who died of heart disease. She had one attack of hæmorrhage but no other uterine symptom.

## FIBRO-MYOMATA (FIBROIDS).

1361. The left half of a uterus, &c. The body of the uterus is greatly thickened, and hypertrophied, and is acutely anteflexed on the cervix. There is a multilocular cyst adherent to the back of the uterus. The minute anatomy of the thickened body is the same as that of a fibroid.

From a woman who had twice married but who had no children. She died of acute pneumonia.—*Trans. Obstet. Socy.*, 1882-1883 and *P. M. Reports*, 1883.

1362. Uterus and vagina. At the fundus uteri is a large interstitial fibroid which is laid open. To the right of the fundus is a sub-peritoneal fibroid which has undergone calcareous degeneration in the centre. There are other small fibroids in the posterior wall of the uterus, and in the vagina is a small pedunculated fibroid. The ragged surface in the cervix was made during life in removing another fibroid.

From a woman who had had severe metrorrhagia. Operation was followed by a rigor on the third, and death on the ninth day.—*P. M. Reports*, xiv. No. 119.

Dr. MEADOWS.

1363. A uterus injected showing two interstitial fibroids. The injection shows that these growths are poorly supplied with blood.

Mr. S. LANE.

1364. Uterus and vagina. A large submucous fibroid springs from the right side of the cervix and projects through the os externum into the vagina.

From a woman aged forty-six. There had been irregular and profuse hæmorrhages for over a year before death, which was due to heart-disease.—*P. M. Reports*, vol. x. No. 110.

Sir EDWARD SIEVERING.

1365. A uterus showing a large interstitial and several smaller subperitoneal fibroids. The large growth is as big as a child's head and is placed in the right wall of the uterus.

From a patient who had never been inconvenienced by the growths and who had menstruated regularly.

1366. A uterus with five small pedunculated subperitoneal fibroids; there is also an interstitial fibroid.

1367. A large subperitoneal fibroid with the pedicle by which it was attached to the uterus: injected.

Mr. S. LANE.

1368. Uterus, &c., showing a large fibroid of the left broad ligament and smaller ones of the uterus.

Mr. SPENCER SMITH.

1369. An interstitial fibroid which has undergone calcareous degeneration.

Mr. S. LANE.

1370. The body of a uterus containing a large interstitial fibroid.

Removed by abdominal hysterectomy from a woman past middle age. She had noticed the tumour three years. There was frequent hæmorrhage. The patient died after doing well for nearly six weeks, when the wound had healed. There was thrombosis of the vagina and iliac veins, due to a slough, which involved part of the os uteri and part of the vagina.

#### SARCOMA.

1371. The pelvic organs of a woman showing malignant disease of the uterus. The affection began in the cervix and extended to the body of the uterus, to the bladder, and between the rectum and the vagina. The microscope shows the growth to consist of small round and spindle-shaped cells.

#### CANCER.

1372. A uterus and neighbouring parts affected by cancer. The growth began in the cervix, extended backwards to the rectum and downwards to the vagina. The body of the uterus is unaffected.

NORTH COLLECTION.







1373. Uterus, &c., with the bladder, showing a cancer of the cervix which has invaded the bladder causing vesico-vaginæ fistula.

Dr. TYLER SMITH.

1374. The body of a uterus containing a mass of new growth which in the recent state was of soft consistence. The microscope shows the growth to be cancer.

Removed from an old woman who died whilst abdominal hysterectomy was being performed.

Dr. BRAXTON HICKS.

## SERIES XXIX.—AFFECTIONS OF THE VAGINA AND VULVA.

### CONGENITAL DEFECTS.

- 1374a. The genital organs of a pseudhermaphrodite old lady. The parts consist of:—

- a.* An enlarged clitoris which has a corpus spongiosum. On its under surface are two outer and two inner folds, the latter bounding a groove which leads to the external orifice.
- b.* Two labia majora.
- c.* An external orifice leading by a canal two and a half inches long to the bladder.
- d.* At the neck of the bladder is an organ resembling the prostate in form but containing no ducts.
- e.* Behind the bladder is a well-formed but small uterus with body and cervix. The latter passes without any os into the vagina, which is continued behind the prostate to join the urethra.
- f.* A normal ovary on the left side, and the opening of the left Fallopian tube into the uterus. The right broad ligament is missing.

No testes, vasa deferentia, or seminal vesicles were found.

*Path. Trans.*, vol. xi. 158.

### NEW GROWTHS.

1375. The labia of a prostitute covered with warts due to the irritation of gonorrhœal discharge.

Removed at the Lock Hospital.

Mr. LANE.

1376. A dark mushroom-shaped growth removed from the clitoris. The microscope shows it to be an alveolar sarcoma. The pigment lies both in the cells and in the connective tissue.

SERIES XXX.—NORMAL MENSTRUATION, UTEROGESTATION, INTRAUTERINE DEVELOPMENT, &c.

1377. A uterus containing the menstrual decidua which has separated entire after death. The right ovary contains a recent corpus luteum and above it the parovarium is well seen. NORTH COLLECTION.
1378. A recent corpus luteum in one of the ovaries of a virgin.
1379. The pelvic viscera of an adult woman. The left ovary shows the scar of an old corpus luteum.
1380. Uterus and appendages in the third week of pregnancy. There is a large corpus luteum in the left ovary. The uterus is enlarged and lined by decidua. Part of the decidua reflexa has been cut away in order to show the ovum which presents externally the chorionic villi, and measures one inch and an eighth by three quarters of an inch. The piece of blue paper lies behind the embryo and the amnion. The embryo is one-sixth of an inch long, the amnion is not fully distended. NORTH COLLECTION.
1381. A human ovum a few days old. NORTH COLLECTION.
1382. A human ovum about the end of the second week. The embryo has escaped. NORTH COLLECTION.
1383. Human ovum of about four weeks. The embryo is three-quarters of an inch long. The limb-buds have appeared. The amnion is torn. The umbilical vesicle is distinctly seen beside the allantoic pedicle. MR. LANE.
1384. An early ovum showing the chorion and within it the amnion.
1385. A human ovum of about eight weeks. The embryo is an inch long. DR. W. F. CLARKE.
1386. A human embryo of about ten weeks, which died and was macerated in the uterus before extrusion, and shows the amount of ossification at this stage of development.
1387. A foetus about ten weeks old in the amnion. The right foot is pressed against the left thigh, and is in the position which if maintained would cause talipes calcaneus.
1388. A male embryo four inches long and about twelve weeks old. The penis, upper lip, and palate are completely formed. MR. R. H. COLE.
1389. A foetus about four inches and a half long and about thirteen weeks old. The amnion has been torn across where it invests the cord, otherwise the membranes are intact. The feet are crossed and are in the equino-varus position. NORTH COLLECTION.





1390. A male foetus of about four months and a half; eight inches and a half long. Hair is appearing on the scalp. The cord is twice as long as the foetus. NORTH COLLECTION.
1391. A male foetus nine inches long with the placenta (fifth month). The cord is coiled round the neck of the foetus. There is fine hair on the scalp and lanugo is appearing on the body. The eyelids are still adherent. The feet are crossed in the calcaneus position.
1392. A male foetus nine inches and a quarter long (fifth month). The feet are crossed and are in the calcaneus position.
1393. A male foetus ten inches long (fifth month). The formation of subcutaneous fat has commenced. The feet cross and are in the varus position.
1394. A foetus thirteen inches long (sixth month). The eyelids are parted. It was born alive but could not breathe owing to the mouth and nostrils being blocked with mucus. NORTH COLLECTION.
1395. A foetus in the uterus at the sixth month. The anterior wall and part of the fundus have been cut away to show the interior. Probably the liquor amnii escaped some time before the death of the mother, as the foetus, which lies transversely, shows signs of pressure.
1396. A foetus in the uterus at the eighth month. The cord is flattened, the limbs cramped, and the back bent, owing to the liquor amnii having escaped before the death of the mother. The foetus is twenty inches long. Both testes are in the scrotum.
1397. Foetus in utero at full term. It measures twenty-one inches and a half, the finger-nails project beyond the fingers. The presentation is L. occipito-posterior. The placenta covers the right part of the fundus and the posterior wall.
- 1397a. Twins about the fifth month. There is a single placenta. The amniotic sacs were separate. They are both of the female sex. Probably the result of sub-division of a single ovum.
- 1397b. Three foetuses expelled at one birth. All these are of the female sex and probably the result of sub-division of a single ovum-cell. NORTH COLLECTION.
1398. Uterus at the beginning of the third stage of labour, the placenta in situ.
1399. A portion of a uterus six hours after delivery. NORTH COLLECTION.
1400. Part of a human placenta (injected), chorion, and amnion. NORTH COLLECTION.
1401. The foetal portion of a placenta injected, showing the chorionic villi. NORTH COLLECTION.

1402. Part of the uterus of a mare, and below, part of the chorion. The parts were injected from both the mother and fœtus. The chorion is everywhere covered with villi, without the formation of a placenta.  
NORTH COLLECTION.
1403. The bicornuate uterus of a sheep containing an ovum, injected from the maternal side only, showing cotyledons.  
NORTH COLLECTION.
1404. Part of the pregnant uterus of a cow, with corresponding portions of chorion and amnion, the former showing a cotyledon.
1405. An ovum of a bitch showing a zone-shaped placenta.  
NORTH COLLECTION.
1406. A garden-pea opened to show the placentæ.  
NORTH COLLECTION.

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SERIES XXXI.—ABNORMAL MENSTRUATION, UTERO-GESTATION, & AFFECTIONS OF THE PUERPERIUM.

1407. A clot, partly discoloured. Discharged from the uterus during painful menstruation.
1408. Uterus and appendages, from a case of pelvic hæmatocele and peritonitis. The uterus is swollen and contains shreds of the menstrual decidua. The right ovary presents a cavity filled with clots. There are patches of lymph on the broad ligaments.  
From a woman aged thirty-five who when menstruating had a rigor and died in five days. She vomited and had tympanites with but little abdominal pain. Clots were found in the recto-uterine pouch, and there was pus in all parts of the peritoneal cavity.  
Dr. CHEADLE.
1409. Menstrual decidua from a case of membranous dysmenorrhœa. The outer surface is shaggy, the inner smooth.

CRIMINAL ABORTION.

1410. Uterus, vagina, and rectum. The vagina is partly lined by grey slough. The mucous membrane of the rectum shows signs of intense inflammation. The uterus contains an ovum ten weeks old.

From a woman who died of mercurial poisoning caused by an attempt to procure abortion by injecting a strong solution of corrosive sublimate into the vagina. The vaginal sphincter having closed after the injection, the poison was absorbed, causing the usual symptoms, enteritis, &c. The attempt was made by a Belgian who said he was a graduate of a foreign university. He was convicted of manslaughter.

Mr. PEPPER,







1411. Uterus and vagina, from a case of criminal abortion. There is a punctured wound in the upper part of the vagina.

The wound was probably self-inflicted. It caused pelvic abscesses and afterwards pyæmia. Mr. PEPPER.

1412. Uterus and vagina from a case of criminal abortion. There are several small lacerations about the os externum and a deeper cut in the cervix.

The incision in the body of the uterus was made after death. Mr. PEPPER.

1413. Uterus and vagina from a case of criminal abortion. There is a lacerated wound on the left side of the cervix.

Mr. PEPPER.

#### RUPTURE OF THE UTERUS.

1414. A uterus which was ruptured during parturition. The rent extends from the os internum into the vagina.

#### INFLAMMATORY AFFECTIONS OF THE PUERPERIUM.

1415. Uterus twelve days after parturition. The cavity is dilated and lined with sloughy membrane. The os externum is patulous. There were abscesses about the vagina and in one of the breasts.

From a woman aged twenty-seven who lost a great deal of blood. Fever with delirium set in on the third day. Death was due to pyæmia.—*P. M. Reports*, v. 643.

Dr. SIBSON.

1416. Uterus, &c. The uterus is enlarged and its exterior discoloured. There is an abscess cavity in the left broad ligament.

From a woman who died six weeks after parturition. There were abscesses beneath the peritoneum at the back of the uterus, in the left ovary, and in both broad ligaments. That in the left broad ligament had ruptured causing general peritonitis.

*P. M. Reports*, vi. 849.

Mr. URE

1417. Uterus and vagina with sigmoid flexure and the rectum showing a pelvic abscess opening into the sigmoid flexure.

From a woman who had to keep her bed for five months after parturition. Six months after leaving her bed she noticed a swelling in the left ilio-lumbar region. The swelling increased in size for over four months when it opened into the bowel. Six weeks after this the patient died. An abscess extending up to the twelfth rib and eroding the vertebræ and sacrum was found. In the lungs there were changes due to septic broncho-pneumonia.—*P. M. Reports*, xvi, 46.

Dr. SIEVEKING.

1418. Uterus, &c., showing changes due to acute endometritis, pyosalpinx, and pelvic peritonitis. There is a corpus luteum in the right ovary, and in the uterus is a fibrinous polyp formed about some placental remains.

From a woman who aborted at the third month.

1419. Uterus, &c., showing thrombosis of the uterine veins.

From a woman in whom at the eighth month the fever due to cellulitis of the hand brought on labour. The foetus was dead.—*P. M. Reports*, vi. 888.

Mr. URE.

## EXTRA-UTERINE PREGNANCY.

1420. Uterus and appendages. In the left Fallopian tube is a cavity from which was removed the ovum suspended below it. There is a corpus luteum in the right ovary. The mucous membrane of both tubes is healthy.

From a servant girl who said she had had amenorrhœa for three months, then a vaginal hæmorrhage which she took to be a "period." She was admitted in a state of collapse. A lump could be felt in the recto-vaginal pouch. Eighteen ounces of saline solution were transfused into the median basilic vein, and the patient revived a little, but she died of syncope two hours and a half afterwards. After death many pints of blood and clot were found in the peritoneal cavity. There was a rupture in the dilated part of the left Fallopian tube. Between the chorion of the ovum and the wall of the cavity there was some firm clot. Dr. M. HANDFIELD-JONES.

1421. Uterus, &c., showing a rupture in the left Fallopian tube. The uterus contains decidua, and the left ovary a corpus luteum. The cavity in the Fallopian tube contains chorionic villi.

From a servant girl who was suddenly seized with pain and died collapsed. The abdominal cavity was full of blood. The hymen was intact. W. HUNT.

1422. Uterus, &c. The right Fallopian tube contains a small dilatation which has ruptured. The uterus contains a decidua, and the right ovary a corpus luteum.

An early tubal gestation.

1423. Uterus, &c., showing a large clot in the left Fallopian tube. The uterus is enlarged, and contains a decidua. (Both ovaries are cystic).

An early tubal pregnancy. The hæmorrhage caused rupture and death.

1424. Uterus, &c., showing a clot in a dilatation of the right Fallopian tube.

A case similar to No. 423.

1425. The dried remains of a fœtus.

Removed after death from a cavity which lay between the uterus and opened into the rectum. From a woman who died of exhaustion due to the continual discharge and septic absorption.

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SERIES XXXII.—AFFECTIONS OF THE OVUM.

INJURIES RECEIVED DURING PARTURITION.

1426. Parts of a child delivered by podalic version in a case of flattened pelvis. The lower epiphyses of the tibia and fibula and the upper epiphysis of the femur are separated. There is a fracture of the spine and rupture of the cord.

The child was known to be dead before turning was done.





1427. Wax model of the head of a new-born child showing in the right parietal region a depression due to the pressure of the promontory of a contracted pelvis.
1428. A compressed and mummified fœtus of about four months.  
Passed one week before the birth of a healthy child. Dr. M. HANDFIELD-JONES.
1429. A compressed and mummified fœtus which was expelled with a living fœtus.  
Dr. TYLER SMITH.
1430. An aborted ovum. There is much blood extravasated between the decidua and the chorion. The embryo, owing to disintegration of the umbilical cord, was loose in the amniotic cavity.  
From a woman aged thirty who after having six healthy children miscarried several times. She was in the hospital for flooding six months before this ovum was passed. There had been no menstrual bleeding in the meantime. Pain and slight hæmorrhage came on. A fluctuating swelling was felt in the anterior cul-de-sac. The temperature rose to 100·8° before the ovum was passed. No history of syphilis, no displacement. There was probably chronic endometritis. Mr. H. S. COLLIER.
- 1431 to 1443. Ova of different ages aborted, owing to hæmorrhage taking place between decidua and the chorion. NORTH COLLECTION.
1444. An aborted ovum everted. The embryo is about four weeks old.  
NORTH COLLECTION.
1445. Fœtus and placenta. There is extravasated blood in the latter. Aborted.  
NORTH COLLECTION.
1446. An ovum showing early hydramnios which led to abortion.  
NORTH COLLECTION.
1447. An aborted ovum. The embryo is partly macerated. There is a calcareous nodule in the amnion, and another in the chorion.  
NORTH COLLECTION.
1448. A fœtus aborted at the fifth month. There is hæmorrhage into the placenta.  
NORTH COLLECTION.

#### MYXOMA OF THE CHORION.

1449. A small ovum showing the early stages of myxoma of the chorion. The remains of the embryo are seen within the amnion.  
The ovum was aborted.
1450. An ovum surrounded by decidua. The chorion shows early myxomatous degeneration. The embryo has disappeared. Aborted.
1451. An aborted ovum showing early myxomatous degeneration of the chorion.
1452. An aborted ovum. The amnion has been opened. It contained the separated head of the embryo and a little granular matter. The chorionic villi show myxomatous degeneration. There is a clot between the decidua and the chorion.

1453. A large hydatidiform mole—myxomatous degeneration of the chorion. There are numerous clots in the upper part of the specimen.

From a woman aged thirty-four who had previously borne six healthy children. The first symptom was a severe hæmorrhage in the fifth month. This was followed by slighter attacks of bleeding and finally a severe hæmorrhage which caused the patient to come to the hospital. The uterus had been smaller than would have been expected from the date of pregnancy, and so placenta prævia was suspected. At the time of the last hæmorrhage the uterus increased three inches and a half in size, and it was decided to evacuate its contents by the hand. The lower part of the uterus was found to contain numerous clots. After these had been removed the cysts appeared.

Mr. S. A. CLARKE.

1454. "Hydatids" expelled from the uterus at the fifth month of pregnancy.

The symptoms were hæmorrhage alternating with the discharge of watery fluid. The diseased ovum was expelled naturally.

NORTH COLLECTION.

## SERIES XXXIII.—AFFECTIONS OF THE MAMMA.

### CHRONIC ABSCESS OF BREAST.

1455. The cavity is lined with granulation tissue, and the surrounding parts are infiltrated with inflammatory cells.

### NEW GROWTHS.

1456. A fibro-papilloma removed from the nipple of a woman.

Mr. C. G. MACK.

1457. A large adenoma of the breast. The growth has a fibrous capsule and presents a lobulated section. The firmer glandular lobules have on an average the size of a small walnut and are connected to one another by ducts and supported by loose cellular tissue. The growth weighed 1140 grams. The microscope shows a structure closely simulating virgin breast: branching tubes lined with a single layer of small cubical epithelium are scattered sparsely in wavy fibrous tissue.

The growth was removed from a girl aged thirteen. It was enucleated easily, not a single vessel requiring ligature. The nipple and the breast were not removed. The breast had been slowly enlarging for four months when the patient first came to St. Mary's ten months before operation. When first seen there was a hemispherical swelling measuring fifteen inches round the base. The breast was firm, granular to touch, and had over it enlarged veins. The patient had just begun to menstruate. It was treated by strapping. She was shown to the candidates at the College of Surgeons as a typical example of hypertrophy of the breast. There was discomfort from dragging but no pain. The nipple was not retracted. When re-admitted just before the operation the nipple was flattened out, the tumour measured eighteen inches and a half round the base.—*Clin. Notes*, No. 1445, 1891.

Mr. SILCOCK.







1458. Adenoma of the breast, containing numerous small cysts. The stroma consists of fibrous tissue containing clear oval cells somewhat sparsely scattered through it.

1459. Fibro-adenoma of the breast. The growth is encapsuled and lobulated. There are intra-cystic projections.

1460. Fibro-adenoma of breast, containing numerous small cysts and one large one. The growth is encapsuled. The skin is ulcerated at a point where exploratory puncture had been practised.

In life the skin over the tumour was inflamed. The large cysts contained offensive grumous fluid. After removal the tumour weighed seven and a half pounds. From a multipara aged fifty-three, who observed a small hard and painful lump four months before operation. There was no return twelve months later. Mr. LANE.

1461. Large fibro-cellular adenoma. The growth has ulcerated and projects through the skin at one point. It is lobulated and encapsuled. Throughout the growth are cystic spaces which are reduced to clefts by intracystic projections of growth. The growth is everywhere rich in cells, and in patches the latter are embedded in hyaline matrix. Mr. OWEN.

1462. A breast containing a cystic adenoma. Some of the ducts have been dissected to show how they have been stretched by the tumour so as to cause retraction of the nipple. The growth is surrounded by a thick capsule, from which in parts it is separated. The microscope shows an adenoma very rich in glandular elements with tracts of spindle-cells here and there between the acini.

From a girl aged seventeen. First recognised two months before operation. The whole breast was removed on account of rapid growth. A few weeks after this breast had been removed a similar growth began in the opposite breast necessitating its removal. Mr. PEPPER.

1463. Adeno-sarcoma. The growth is very firm and the section somewhat resembles that of a scirrhus. The microscope shows epithelial columns surrounded by an abundant spindle-celled stroma.

From a woman aged twenty-nine who first noticed a lump ten months before it was removed. Mr. OWEN.

1464. A spindle-celled sarcoma of the breast.

This is the commonest kind of sarcoma met with in the breast and constitutes the kind of growth formerly known as recurrent fibroid. Mr. OWEN.

1465. A spindle-celled sarcoma of the breast.

Mr. PEPPER.

1466. A scirrhus of the breast which infiltrates the skin.

Mr. PAGE.

1467. A scirrhus of the breast. The skin is ulcerated and the growth projects from the surface (fungation). The nipple is destroyed.

Mr. S. LANE.

1468. Atrophic scirrhus. The growth had been present for some years, only attaining the size of a chestnut.

Removed from a lady of seventy. There was no return four years later

Mr. J. LANE.

1469. Scirrhus of the breast. The nipple is retracted. It has been cut in half and shows infiltration. Two lymphatic glands, one from the pectoral the other from the main axillary group are the seat of secondary deposits, and are connected with the original growth by enlarged lymphatic vessels.

1470. A scirrhus of the breast dissected. It had an irregular outline and presents hard outlying nodules of growth and a tail of indurated lymphatics and fat in which there is a secondary nodule.

Removed from an old woman.

Mr. OWEN.

1471. Scirrhus of breast, a bundle of ducts pass from the retracted nipple to the growth, and some lymphatic vessels pass to a enlarged and cancerous axillary gland. There is a small cyst containing blood near the lower edge. The retraction of the nipple was congenital.

1472. Cystic scirrhus of breast. The greater part of the growth is below the nipple, which, however, is retracted. The skin below the nipple is stretched over the tumour, is smooth and adherent to it. In the centre there are a number of small cysts. The margin of the growth is infiltrating the gland. No history. The microscope shows that the cysts are formed by the dilatation of alveolar spaces after liquefaction of their central cells.

1473. Scirrhus of the axillary glands.

Removed from a patient nine months after amputation of the breast. The growth was adherent to the axillary vein. The wound healed rapidly.

Mr. S. LANE.

1474. Cancer of axillary glands secondary to scirrhus of the breast, which had been amputated two years previously. The growth contains several small cysts, and an irregular cavity which was filled with blood.

Mr. SILCOCK.

1475. Soft cancer of breast. The nipple is retracted. The growth has ulcerated.

Mr. S. LANE.

1476. Soft cancer of the breast which is fungating, and has caused retraction of the nipple. The microscope shows that the central cells in the alveoli have become altered from compression, and in some parts have broken down, leaving a central lumen.

1477. Soft cancer of the breast ulcerated and adherent to the chest-wall. The lung is adherent to the pleura.

1478. Duct cancer of the breast. The cleft-like spaces are cysts almost filled by intra-cystic growths. These epithelial growths





everywhere tend to form tubules, which are isolated, not individually but in groups, by fibrous septa. The central cells of the larger alveoli have broken down into granular detritus so forming cystic spaces.

1479. Colloid cancer of the breast. The nipple is retracted. The more recent alveoli resemble those of a rapidly growing scirrhus. In the older ones, colloid drops distend some of the cells, and by joining one another form a reticulum, the spaces of which are filled with colloid material.

1480. Colloid cancer of the breast. The lower part of the specimen shows an unaffected gland. The alveolar structure of the colloid growth is evident. The microscope shows that the colloid material originates in the cells. In the larger alveoli the central cells differ from the peripheral, becoming branched and tending to break up, while some of the peripheral cells become distended by colloid matter which accumulates and thrusts aside the neighbouring cells.

From a patient aged twenty-eight who first noticed a lump nine months before removal. The growth recurred as five scattered nodules six months after the operation, and reappeared again between that time and the end of the first year, when her general health was good. Nodules appeared from time to time for four years, at the end of this period there was a large granulating surface left after removal of recurrent growth. Five years after the first operation there was a vast ulcerated surface on the chest and affection of the axillary glands.

Mr. PYE.

#### SERIES XXXIV.—NORMAL & DEFORMED PELTS.

1481. Pelvis of a child aged six. It has on a small scale the characters of the adult male pelvis.

1482. Pelvis at the age of puberty. It has the characters of that of the adult male.

1483. Pelvis of an adult male with the fasciæ. The muscular impressions are prominent. The ilia are nearly vertical, and the subpubic angle small ( $60^{\circ}$ ), so that the depth of the true pelvis is considerable.

Measurements:—

Distance between anterior iliac spines ..	...	8 inches.
"    "    middle points of crest...	...	$8\frac{1}{2}$ "
Conjugate diameter .. .. .	...	4 "
Transverse .. .. .	...	$4\frac{1}{2}$ "
Oblique .. .. .	...	$4\frac{1}{2}$ "
The width of the sacrum opposite the 1st vertebra is	4	"
Distance between ischial tuberosities .. .. .	...	$2\frac{1}{4}$ "
"    "    "    spines .. .. .	...	$2\frac{3}{4}$ "

1484. Normal female pelvis. The bones are light, the muscular impressions but little marked. The subpubic angle is  $87^{\circ}$ . The width of the sacrum opposite the 1st vertebra is  $4\frac{3}{4}$  inches.

Distance between the anterior spines	...	...	10 inches.
" " middle of crest	...	...	11 "
Conjugate diameter...	...	...	$4\frac{1}{2}$ "
Transverse " ...	...	...	$5\frac{1}{4}$ "
Oblique " ...	...	...	5 "
Distance between the ischial tuberosities	...	...	$4\frac{1}{2}$ "
" " " spines	...	...	4 "

1485. Flattened and generally contracted rachitic pelvis from a diminutive woman aged about twenty. The sacrum presents an angle between the first and second vertebræ. This angle might be mistaken for the promontory in estimating the diagonal conjugate in life. The sacrum placed farther forward than normal is sunk deeply between the ilia and is only three inches wide. The acetabula look forwards.

Conjugate diameter	...	...	...	$2\frac{1}{4}$ inches.
Diagonal conjugate	...	...	...	$2\frac{3}{4}$ "
Transverse diameter	...	...	...	$4\frac{1}{4}$ "
Oblique " ...	...	...	...	$3\frac{1}{2}$ "

The subpubic angle is increased in size, the ischial tuberosities being relatively widely separated  $4\frac{1}{4}$  "

The inlet is reniform in shape, the outlet is increased in size.

1486. A pelvis similar to No. 1485. The displacement of the sacrum forwards is well seen from behind. The position of the sacrum would be nearly horizontal in the erect position.

1487. Cast of a scolio-rachitic pelvis. It has all the characters of a flattened and contracted pelvis, and besides on the left side owing to the weight of the body being transmitted chiefly by the corresponding leg, the space is farther diminished by the bending of the left ilium, causing the promontory to approach the acetabulum.

1488. Cast of a pelvis showing extreme deformity due to osteomalacia.

1489. Cast of a pelvis in which the body of the fifth lumbar vertebra has been destroyed, making a retiring instead of a salient angle at the promontory.

1490. Cast showing the oblique pelvis of Nægele. There is absence of the lateral mass of the sacrum and anchylosis of the sacrum and the ilium on the left side.

The right oblique diameter is	...	...	...	$3\frac{1}{2}$ inches.
The left	...	...	...	$5\frac{1}{2}$ "
The conjugate	...	...	...	$4\frac{1}{2}$ "
The transverse	...	...	...	$4\frac{1}{2}$ "
The walls of the pelvis converge to the outlet, the ischial spines are only $2\frac{1}{4}$ inches apart.				

The spine of the last lumbar vertebra is close to the crest of the ilium and the tip of the coccyx close to the tuber ischii on the affected side.







# SERIES XXXV.—MONSTROSITIES & MALFORMATIONS.

1491. Fœtus partially dissected to show complete spina bifida and a rudimentary cranial cavity.
1492. Fœtus with complete spina bifida (myclocele), and a bilobed cephalic meningocele which is filled with clotted blood. The neck is very rudimentary.
1493. An encephalus, full term. The membrane covering the head has been removed to show the manner in which the central nervous system ends in the medulla, the rest of brain being entirely wanting.
1494. A partly macerated fœtus showing congenital absence of the abdominal wall (gastro-schisis), and protrusion of the abdominal viscera. Mr. C. BACHELOR.
1495. Fœtus with defective abdominal wall and placenta, and double talipes. Mr. POWERS.
1496. Fœtus (7th month) partly macerated. The abdominal wall is defective in front and the viscera protrude. Dr. PAYNE.
1497. Head and feet of a fœtus. There is only one orbit which is placed in the median line (cyclopia) and no nose. The feet have only two toes apiece.
1498. Fœtal monster (dihypogastricus with Janus formation). The two heads are united so that there is but one countenance. The trunk is double below the umbilicus, and there are four upper and four lower extremities.
1499. A twin monster. The fœtus are united by the thorax and abdomen. There are four upper limbs and three lower, one of these is imperfect and springs from the middle line behind. The abdominal viscera are single but there are two penes.
1500. Twin monster. Two fœtus united by the thorax and abdomen.

## SERIES XXXVI.—CALCULI.

### SALIVARY CALCULI.

1501. Small conical salivary calculus.  
The apex projected from the orifice of Wharton's duct. Mr. PEPPER.
1502. A large salivary calculus.  
From Wharton's duct. Dr. SHRIMPTON.
1503. Salivary calculus.  
Removed from the sublingual gland of a child aged five. Mr. SILCOCK.

### INTESTINAL CONCRETIONS.

1504. Intestinal concretion. The nucleus consisted of inspissated fæces. The structure is stratified. Every part burns readily, leaving an ash of magnesium phosphate.

From a child aged four. The concretion caused ulceration and perforation of the vermiform appendix.  
Dr. W. D. WATERHOUSE.

1505. Section of an intestinal concretion.

Removed after death from the vermiform appendix.

Mr. PEPPER.

1506. Intestinal concretion from a man of twenty-six who twelve months previously had typhilitis, which was followed by recurrent pain and the formation of an indurated swelling.

An incision was made over this, and a small button of granulations was seen protruding through the internal oblique muscle and leading to a cavity in which the concretion was found. There was no pus, healing was rapid.

Mr. PEPPER.

1507. A hard white concretion.

It caused perforation of the vermiform appendix and death in an adult.

Mr. PEPPER.

### BILIARY CALCULI.

1508. Two large facettèd cholesterin gall-stones and several smaller ones.

The large stones were found in the duodenum and the smaller ones in the gall-bladder of a patient aged ninety-one, whose health until within a week before his death had always been excellent.

Mr. J. E. LANE.

1509. Twenty-eight small gall-stones, consisting chiefly of bile pigment.

From a woman aged fifty, who had suffered from indigestion and who had three attacks of biliary colic followed by jaundice, the first attack occurred ten weeks before the calculi were removed by opening the gall-bladder. The patient made a good recovery. The liver was enlarged and the gall-bladder thickened.

Mr. PEPPER.

1510. Cholesterin gall-stones.

Passed by a gentleman aged thirty-eight during a period of six weeks. There was jaundice and great pain.

Mr. ANCELL.

1511. Cholesterin calculus.

Mr. NAPPER.

1512. Numerous minute gall-stones.

Removed after death from a man aged fifty-one who had mitral regurgitation and nutmeg liver. They consist chiefly of pigment and mucus.

1513. Two six-branched gall-stones found after death in the gall-bladder of an old woman. Their inner part consists of cholesterin and the outer coat chiefly of pigment.

Dr. LEES.

1514. Tuberculated cholesterin calculus which escaped by ulceration through the abdominal wall.

Mr. NORTON.





1515. Five gall-stones resembling No. 1513, and tending to become branched.

Removed from the gall-bladder after death.

1516. Two cholesterin calculi removed from the gall-bladder after death. The larger presents a facet.

Dr. BARRATT.

- 1516a. A large cholesterin gall-stone.

Passed without much pain by the patient, an old man.

NORTH COLLECTION.

### RENAL CALCULI.

1517. Gravel. Several minute calculi consisting of uric acid. They are formed in the kidneys.

From a gentleman aged sixty-six who suffers from gout.

1518. Small oxalate of lime calculi.

Passed per urethram by a girl.

Mr. BAIRD.

1519. Small star-shaped calculi consisting of oxalate of lime.

Removed after death from the kidneys of a lady aged seventy.

1520. Renal calculus consisting of oxalate of lime.

Removed by nephrolithotomy from a girl aged fourteen who had marked hæmaturia and pain from infancy. She recovered rapidly from the operation.

Mr. PEPPER.

1521. A renal calculus consisting of oxalate of lime.

Removed from a man aged forty-eight who had two severe attacks of hæmaturia and pain.

Mr. PEPPER.

1522. Very large branched calculi. They are fusible, being composed of a mixture of ammonio-magnesian and calcium phosphates.

Removed after death from the kidneys of an old lady.

1523. Renal calculus consisting of oxalate of lime.

Removed by nephrolithotomy from a man aged twenty-three. There had been severe pains in the loin with attacks of renal colic and vomiting for four years, but there was no hæmaturia. The patient left the hospital in three weeks.

Mr. PEPPER.

1524. Two fragments of a branched renal calculus of mixed phosphates.

Removed during life. After death a phosphatic calculus was found in the bladder.

Mr. PEPPER.

### VESICAL CALCULI.

1525. Large uric acid vesical calculus.

Removed at Central India.

Surgeon G. M. J. GILES.

1526. Vesical calculus consisting of urate of ammonia with a nucleus of uric acid.

From India.

Mr. PEPPER.

1527. Oxalate of lime calculus with an outer coat of phosphates and a nucleus of uric acid.

Mr. PYE.

1528. Calculus consisting of ammonio-magnesian and calcium (fusible) phosphate. It has a double nucleus.

From India.

Mr. PEPPER.

For an example of cystine calculus see No. 1210.

1529. Vesical calculus with a nucleus of uric acid and body of oxalate of lime.

Removed from a Chinese boy aged fourteen. Symptoms two years.

Mr. H. S. COLLIER.

1530. Small laminated buff-coloured uric acid calculi.

Removed from the bladder of a gentleman. There were over two hundred similar calculi, the largest was as big as a marble and was crushed, the rest were removed by the evacuator. The patient had gout, and his father stone.

Mr. PLPIER.

1531. About one-fifth of the debris of a large uric acid calculus, which required three hours to crush.

The patient was well in six days.

Mr. PEPPER.

1532. Small uric acid calculus removed by lateral lithotomy.

From a boy aged six who recovered in a week.

Mr. PEPPER.

1533. Warty oxalatic calculus which caused acute symptoms.

It was removed by lateral lithotomy from a boy of eleven, who rapidly recovered.

Mr. PEPPER.

1534. Calculus. The oval centre consists of phosphates with some uric acid, it has increased in size by the deposition of phosphates on its free surfaces.

Lateral lithotomy; death from septicæmia.

Mr. PEPPER.

1535. Crushed vesical calculus consisting of uric acid. The debris weighs six drachms and fifty-one grains.

Removed from a farmer aged fifty-six who had symptoms of renal calculus fifteen years before. Immediately before the operation the urine contained pus. The patient was well in eight days.—*Clin. Notes*, No. 692, May 22, 1889.

Mr. OWEN.

1536. Calculus similar to No. 1535.

From India.

Mr. PEPPER.

- 1537-1541. Vesical calculi, consisting of uric acid.

1542. Two tuberculated buff-coloured vesical calculi, uric acid.

From India.

Mr. PEPPER.







1543. Uric acid calculus with radial fissures. Surgeon G. M. J. GILES.
1544. Small warty calculus consisting of oxalate of lime with a nucleus of uric acid.
1545. Two small vesical calculi consisting of urates and phosphates.  
Removed from the bladder of a boy. Mr. PYE.
- 1545a. Calculus with uric acid nucleus and body of oxalate of lime.  
Mr. PYE.
1546. Pale oxalate of lime calculus. Surgeon G. M. J. GILES.
1547. Vesical calculus. Surgeon G.M. J. GILES.
1548. Calculus consisting chiefly of urate of ammonia.  
Surgeon G. M. J. GILES.
1549. Calculus resembling No. 1548. Surgeon G. M. J. GILES.
1550. Uric acid calculus with crystals of uric acid on the surface.  
From India. Mr. PEPPER.
1551. Oxalate of lime calculus chipped by the lithotrite which failed to crush it.  
From India. Mr. PEPPER.
1552. A vesical calculus consisting of oxalate of lime. Mr. PYE.
1553. Vesical calculus, the central part composed of oxalate of lime, the outer part of mixed phosphates.  
From a boy of twelve who had symptoms for six years.  
Brigade-Surgeon A. B. R. MYERS.
1554. Calculus consisting of oxalate of lime with a nucleus of the same. Surgeon G. M. J. GILES.
1555. Vesical calculus consisting of oxalate of lime and weighing 17 grains.  
Removed from a boy aged thirteen who had had symptoms for fifteen months.  
Mr. PEPPER.
1556. Large uric acid vesical calculus weighing 156 grains.

#### URETHRAL CALCULI.

1557. A calculus consisting of uric acid.  
From a boy aged nine. For four years he had pain in micturition with some hæmorrhage, and at last complete retention of urine. One calculus was extracted from the urethra by forceps but the retention was unrelieved. The calculus preserved was felt from the perinæum and chloroform was given in order to make an incision. However an attempt to remove it by forceps was successful when the patient was anæsthetised.—*Clin. Notes*, 1889, No. 49.  
Mr. NORTON.

## 1558. Small oxalate of lime calculus.

Passed per urethram by an adult.

Mr. T. H. R. CROWLE.

## 1559. Urethral calculus expressed by the fingers.

From a boy who had felt pain for five years.

Mr. A. S. HANSON.

## 1560. Large urethral calculus.

Removed in India.

Surgeon G. M. J. GILES.

## 1561. Calculus removed by forceps from the prostate urethra.

From a man whose micturition was interrupted from time to time by the calculus leaving the bladder and becoming impacted in the urethra.

Mr. NORTON.

## PREPUTIAL CALCULI.

## 1562. Two disc-shaped calculi presenting each a smooth facet. They consist of mixed phosphates.

Removed from within the prepuce of an old man who had congenital phimosis. They caused retention of urine. See No. 1177.

Mr. PAGE.

## OTHER CALCULOUS FORMATIONS.

## 1563. A phlebolith. The cut surface shows concentric lamellation. The exterior was covered with a fibrous pellicle which adhered to the wall of the vein. From the nævus, No. 715.

## 1564. A phlebolith.

From the prostatic plexus of an old gentleman.

Mr. SILCOCK.

## SERIES XXXVII.—ENTOZOA.

## PROTOZOA.

## 1565. A portion of a rabbit's liver. Where slices have been removed the cut surface presents pale spots which are cross-sections of dilated and thickened bile ducts, which are full of coccidia. On the under surface of the organ seen through the peritoneum is a bile duct with opaque white contents. The microscope shows the spindle-shaped coccidium oviforme in great numbers.

From an Ostend rabbit. The disease occurs in man.

Mr. BLAND SUTTON.

## VERMES.

## NEMATODA.

1566. A round worm—*Ascaris lumbricoides*.

From the ascending colon. The specimen is preserved in a solution of glycerine and carbolic acid.

## 1567. A female ascaris which measures nine inches in length. The genital orifice is at the junction of the anterior and middle thirds of the body.





1568. A female ascaris dissected to show the intestinal canal to the right, and to the left the ovaries and oviducts.

TREMADODA—FLUKES.

1569. *Distoma hepaticum*. A portion of a sheep's liver containing two flukes in dilated bile ducts.
1570. A large fluke vomited up by a man in China. Mr. PEPPER.

CESTODA OR TAPE-WORMS.

1571. Part of a tape-worm—*Tenia solium*. The genital orifice of each segment is situated laterally, alternately to right and left.
1572. *Tenia echinococcus*. Daughter-cysts from a hydatid of the liver.

